

**Before the
Federal Communications Commission
Washington, DC 20554**

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| In the Matter of |) | |
| |) | |
| Comment Sought on Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auctions 1001 and 1002 |) | AU Docket No. 14-252 |
| |) | |
| Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions |) | GN Docket No. 12-268 |
| |) | |

REPLY COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION

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TABLE OF CONTENTS

| | |
|--|-----------|
| INTRODUCTION AND SUMMARY | 1 |
| DISCUSSION | 4 |
| I. THE 600 MHZ INCENTIVE AUCTION SHOULD, AS PLANNED, COMMENCE IN EARLY 2016. | 4 |
| A. Holding the Auction as Scheduled Will Help Meet Growing Demand for Mobile Broadband and Realize Considerable Consumer Benefits. | 4 |
| B. Commenters Broadly Support Holding the Auction as Scheduled. | 6 |
| II. THE RECORD DEMONSTRATES BROAD SUPPORT FOR PROTECTING AND STRENGTHENING THE SPECTRUM RESERVE. | 7 |
| A. The Spectrum Reserve Remains Pivotal to Spurring Mobile Broadband Competition, and the Incentive Auction’s Primary Defense Against Foreclosure. | 7 |
| B. The Commission Should Ensure that Each PEA Is Capable of Supporting a Full Spectrum Reserve. | 8 |
| C. Suggestions to Increase the Price Per MHz-Pop Reserve Trigger or “De- Couple” it from the Final Stage Rule Should be Rejected. | 11 |
| D. The Spectrum Reserve’s Maximum Size Should be Expanded from 30 Megahertz to 40 Megahertz. | 14 |
| III. MODIFICATIONS TO THE ASSIGNMENT ROUND CAN HELP ENSURE AN EQUITABLE DISTRIBUTION OF LICENSES. | 15 |
| A. Following Application of the Pre-Assignment Round Objectives, the Commission Could Assign Spectrum Licenses Randomly During the Assignment Phase. | 17 |
| B. If the Commission Instead Opt to Employ an Assignment Auction, Alternative Mechanisms Could Help Prevent Foreclosure. | 19 |

| | |
|--|-----------|
| IV. THE COMMISSION SHOULD ELIMINATE IMPAIRMENTS IN A LOGICAL MANNER THAT MAXIMIZES USEFUL BROADBAND SPECTRUM..... | 20 |
| A. Channel 51 Should Be the First Station Out of and the Last Station In any 600 MHz Band Plan..... | 20 |
| B. The Channel-Stacking Plan Proposed By CCA Offers More Predictability, Utility, And Efficiency For Broadband Operations Than the Alternatives. | 20 |
| V. MODIFYING CERTAIN AUCTION PROCEDURES CAN SIMPLIFY THE AUCTION, MAXIMIZE THE AVAILABILITY OF BROADBAND SPECTRUM, AND MINIMIZE IMPAIRMENTS. | 24 |
| A. Using Proposed Principles for Determining Impairments and Weighted-Pops Can Help Maximize Available Spectrum and Simplify Auction Administration. | 25 |
| B. Dynamic Reserve Pricing Offers a Flexible Mechanism for Determining Initial Bids in the Reverse Auction..... | 28 |
| C. Modifying Other Rules Relating to Bidding Activity and Bid Increments Will Avoid Disadvantaging Smaller Carriers During the Forward Auction. | 32 |
| CONCLUSION | 34 |

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REPLY COMMENTS OF COMPETITIVE CARRIERS ASSOCIATION

Competitive Carriers Association (“CCA”) submits these reply comments in response to the Public Notice (“*Auction Comment PN*”) in the above-captioned dockets.¹ In that Public Notice, the Federal Communications Commission (“FCC” or “Commission”) seeks comment on procedures necessary to carry out the 600 MHz incentive auction, such as bidding procedures for the reverse and forward auctions and the final frequency assignment process for licenses won in the forward auction.² The record strongly supports imposition of procedures that foster robust competition in the auction room and in the marketplace, maximize the amount of spectrum cleared, minimize impairments, and provide participants with detailed information to make informed decisions both before and during the incentive auction.

¹ *Comment Sought on Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auctions 1001 and 1002*, Public Notice, 29 FCC Rcd 15750 (2014) (“*Auction Comment PN*”).

² *Id.* ¶¶ 1, 5.

INTRODUCTION AND SUMMARY

CCA represents the interests of more than 100 competitive wireless carriers, most of which are small carriers who serve otherwise underserved portions of rural America and many of which lack sufficient access to low-band spectrum. CCA welcomes this additional opportunity to comment on the auction procedures proposed in the Commission's *Auction Comment PN*. As noted numerous times, CCA's carrier members are keenly interested in the 600 MHz incentive auction and are optimistic about the competitive benefits that could result. The Commission's proposals are generally sound. As a result, the Commission must ensure that the auction stays on schedule and, as noted in CCA's comments, should adopt key changes to its structure to help advance important goals such as ensuring that each market can accommodate a full spectrum reserve.

First, the Commission should ensure that the 600 MHz incentive auction commences in early 2016 as planned. The record demonstrates that holding the auction as scheduled will help meet growing demand for mobile broadband, grow the economy, and realize considerable consumer benefits. The record also demonstrates that any further delay of the auction will come at great cost – **at least \$200 billion by some estimates**. In addition, commenters broadly support holding the 600 MHz incentive auction without further delay.

Second, the Commission should strengthen the spectrum reserve, which remains pivotal to spurring mobile broadband competition and the incentive auction's primary defense against foreclosure. To that end, the Commission should ensure that every PEA is capable of supporting a full spectrum reserve with the least impaired spectrum. Additionally, to ensure the success of the spectrum reserve, the Commission should consider eliminating or reducing the second and

superfluous price per MHz-pop reserve trigger and expanding the reserve's maximize size from 30 MHz to 40 MHz.

Third, the Commission should incorporate modifications to the assignment round that help promote an equitable distribution of licenses. For instance, the Commission could add objectives that protect smaller competitive carriers from foreclosure in the assignment round, such as adding efficiency objectives, assigning spectrum licenses randomly, or employing a hybrid assignment auction approach that uses draft picks.

Fourth, the Commission should adopt the channel stacking plan proposed by CCA, which offers more predictability, utility, and efficiency for broadband operations than any alternative. Under that plan, the Commission could prepare in advance for different possible band plans and adopt a specific band plan for each scenario. Such an approach would maximize the available utility of spectrum, allow bidders to better predict impairment locations and consequences, and allow the Commission to ensure that Channel 51 is always the last channel to be filled.

Fifth, the Commission should adopt other measures that would simplify the auction, maximize the availability of broadband spectrum, and minimize impairments. For example, adopting high clearing targets while managing impairments using weighted-pops will maximize available spectrum and simplify auction administration. Additionally, dynamic reserve pricing or some similar methodology can help balance the bid amounts that broadcasters will receive with the actual amount that they would be willing to accept.

Finally, softening the activity rule, lowering opening bidding amounts, and allowing additional time to prepare between phases can help ensure that smaller carriers are not disadvantaged by the auction's structure.

DISCUSSION

I. THE 600 MHZ INCENTIVE AUCTION SHOULD, AS PLANNED, COMMENCE IN EARLY 2016.

A. Holding the Auction as Scheduled Will Help Meet Growing Demand for Mobile Broadband and Realize Considerable Consumer Benefits.

The Commission should, as planned, begin the 600 MHz incentive auction in early 2016 to help meet the growing demand for mobile broadband, grow the economy and realize the considerable consumer benefits that depend on it. Numerous commenters note the “immediate consumer hunger” for mobile broadband services and that carriers are “willing and able to feed that hunger” if given access to the right tools.³ In addition, even broadcast interests acknowledge that wireless carriers need additional spectrum in the near-term.⁴ Meeting this demand will require “the full range of tools available to the wireless mobile industry players,” in particular low-band spectrum.⁵ The 600 MHz incentive auction represents a tremendous opportunity for carriers to gain critical access to low-band spectrum; to facilitate that process, the Commission should begin the auction as soon as practicable.

Meanwhile, the record establishes that any delay of the 600 MHz incentive auction will come with a huge price tag. For example, the Brattle Group estimates that each year of delay reduces the economic value of the spectrum and costs society \$60 billion in foregone consumer

³ See, e.g., Comments of Rural Wireless Association and NTCA – The Rural Broadband Association, AU Docket No. 14-252, GN Docket No. 12-268, at 6-7 (filed Feb. 20, 2015) (“RWA and NTCA Comments”); Comments of T-Mobile USA, Inc., AU Docket No. 14-252, GN Docket No. 12-268 at 21 (filed Feb. 20, 2015) (“T-Mobile Comments”).

⁴ See Kagan Media Appraisals, *Can the FCC Attract a Full House for the 2016 Broadcast Incentive Auction*, at 13 (2015) (“Kagan White Paper”), attached to Comments of Expanding Opportunities for Broadcasters Coalition, AU Docket No. 14-252, GN Docket No. 12-268, as Attach. A (filed Feb. 19, 2015) (“EOBC Comments”).

⁵ *Id.* at 2.

welfare.⁶ The Brattle Group also notes that the pending presidential election implies that any delay of the 600 MHz incentive auction is likely to last for two to three years, which means that any delay is likely to create total costs that approach \$200 billion.⁷ Likewise, Professor Peter Cramton explains that a delay would “be a gift to the dominant incumbents [and] result in a substantial reduction in social welfare.”⁸ The Commission should “strongly resist the lobbying effort of the incumbents” on this matter, Professor Cramton advises, as “[w]e have seen in other countries the foreclosure of competition through unnecessary delay of major spectrum auctions.”⁹ The 600 MHz incentive auction has already been delayed by the National Association of Broadcasters’ (“NAB”) lawsuit and other factors.¹⁰ Given the costs associated with any further delay, the Commission must ensure that the auction runs as scheduled from this point forward.

⁶ See The Brattle Group, *Realizing the Benefits of the FCC’s Incentive Auction Without Delay*, at 13-14 (2015) (“Brattle Group Report”), attached to Comments of LocusPoint Networks, AU Docket No. 14-252, GN Docket No. 12-268 (filed Feb. 20, 2015) (“LocusPoint Networks Comments”).

⁷ See *id.* (explaining that the election of a new president in 2016 will result in the appointment of a new FCC Chairman, who will want to reevaluate the choices the previous Commission made).

⁸ See Peter Cramton *et al.*, *Design of the Reverse Auction in the FCC Incentive Auction*, at 4-5 (Feb. 19, 2015) (“Cramton Study”), attached to EOBC Comments as Attach. B (explaining that AT&T and Verizon would face greater competition if T-Mobile and Sprint obtained additional low-band spectrum).

⁹ *Id.* at 56; see also, e.g., Ed Richards, Chief Executive, Ofcom, Spectrum in an Age of Innovation, Speech for ECTA Regulatory Conference 2011, at 4 (Nov. 29, 2011) (calling it “disappointing” that, in the case of the U.K.’s 800 MHz auction, “incumbent mobile operators have chosen to entangle this process in litigation or threats of litigation”), available at <http://bit.ly/1Ea6BeH>.

¹⁰ See, e.g., NewCore Wireless, *FCC Delays Start of 600 MHz Incentive Auction to Early 2016* (Oct. 22, 2014), <http://bit.ly/1wcUU6H>. Oral arguments in that case have already been heard and therefore do not need to further slow the auction.

B. Commenters Broadly Support Holding the Auction as Scheduled.

With good reason, interested parties overwhelmingly support holding the 600 MHz incentive auction in early 2016. For example, NTCA – The Rural Broadband Association (“NTCA”) and the Rural Wireless Association (“RWA”) warn that any delay would benefit the largest wireless providers to the detriment of rural consumers.¹¹ Similarly, T-Mobile cautions that delay will only stifle innovation and limit wireless broadband services.¹² Most strikingly, the Expanding Opportunities for Broadcasters Coalition (“EOBC”) maintains that “the Commission must remain steadfast in its plans to conduct the Incentive Auction in 2016.”¹³ The EOBC also observes that concerns about the wireless industry’s ability to fund vigorous bidding are “misplaced” considering the substantial evidence that “wireless carriers have both the incentive and the ability to secure an abundance of capital to bid for the superior spectrum that will be available.”¹⁴ Meanwhile, LocusPoint explains that further delay will put the auction’s credibility among broadcasters at risk, which would slow progress toward channel sharing deals and generally impede broadcaster participation.¹⁵

In fact, only a handful of commenters suggest that any sort of delay of the 600 MHz incentive auction is wanted or even desirable. AT&T is one such commenter,¹⁶ but, as Professor Cramton explains, could use a delay as an additional means of foreclosing its competitors from

¹¹ RWA and NTCA Comments at 6-7.

¹² T-Mobile Comments at iii.

¹³ EOBC Comments at 9.

¹⁴ EOBC Comments at 9-10.

¹⁵ *See* LocusPoint Networks Comments at 4.

¹⁶ *See* Comments of AT&T, AU Docket No. 14-252, GN Docket No. 12-268, at 3 (filed Feb. 20, 2015) (“AT&T Comments”).

low-band spectrum.¹⁷ Another individual commenter seeks a more than modest delay of several months to allow broadcasters to better plan their auction participation,¹⁸ yet that request runs contrary to the consensus of other broadcasters in this proceeding.¹⁹ And again, even a modest delay would only inure to the benefit of the two largest carriers, and could cost consumers tens of billions of dollars.²⁰

II. THE RECORD DEMONSTRATES BROAD SUPPORT FOR PROTECTING AND STRENGTHENING THE SPECTRUM RESERVE.

A. The Spectrum Reserve Remains Pivotal to Spurring Mobile Broadband Competition, and the Incentive Auction’s Primary Defense Against Foreclosure.

As the Commission itself has acknowledged,²¹ the spectrum reserve is necessary to protect against “the foreclosure value of getting control of limited resources.”²² That is, without a spectrum reserve, the largest two carriers who already possess most of the available low-band spectrum would prevent their competitors from also obtaining low-band spectrum at the 600 MHz incentive auction. Indeed, Kagan Media Appraisals predicts that this foreclosure value will be an “irresistible driver” for AT&T and Verizon.²³

Meanwhile, without access to low-band spectrum, other carriers will be unable to meaningfully compete with the two largest carriers. Low-band spectrum possesses propagation

¹⁷ Cramton Study at 56.

¹⁸ See Comments of Morgan Wick, AU Docket No. 14-252 at 1 (filed Feb. 20, 2015).

¹⁹ See, e.g., EOBC Comments at 9-10; LocusPoint Networks Comments at 4.

²⁰ Cramton Study at 4-5, 56; Brattle Group Report at ii.

²¹ *Policies Regarding Mobile Spectrum Holdings, Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, Report and Order, 29 FCC Rcd 6133, 6196-6203 ¶¶ 153-71 (2014) (“*Mobile Spectrum Holdings R&O*”).

²² EOBC Comments at 11 (quoting Kagan White Paper at 36); see also, e.g., T-Mobile Comments at 2.

²³ Kagan White Paper at 36.

characteristics that make it far better suited than high-band spectrum for establishing baseline network coverage.²⁴ Consequently as the U.S. Department of Justice has observed, low-band spectrum is a “competitively critical input” that carriers need to cost-effectively provide reliable, high-quality service, including strong wide-area, rural, and in-building coverage.²⁵ In fact, the Commission was motivated by “the importance of multiple providers, including rural and regional providers, having access below-1-GHz spectrum” to establish a spectrum reserve in the first place.²⁶

B. The Commission Should Ensure that Each PEA Is Capable of Supporting a Full Spectrum Reserve.

Many commenters observe that the Commission’s proposal to stock the spectrum reserve with only Category 1 licenses may leave a PEA either without a spectrum reserve or with only a partial spectrum reserve.²⁷ While well-intentioned, the proposed framework would make it impossible for: (a) any spectrum reserve to be available in a PEA that lacks blocks of spectrum that are 15 percent or less impaired; and (b) the full spectrum reserve to be available in a PEA

²⁴ See, e.g., *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Mobile Wireless, Including Commercial Mobile Services*, Sixteenth Report, 28 FCC Rcd 3700, ¶ 121 (2013) (“*Sixteenth Mobile Competition Report*”). In particular, low-band spectrum provides “superior coverage both over larger geographic areas, through adverse climates and terrain, and inside buildings and vehicles.” *Id.*

²⁵ See Letter from William J. Baer, Assistant Attorney General, U.S. Department of Justice, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 12-269 (May 14, 2014) (“DOJ May 14 Ex Parte”).

²⁶ See *Mobile Spectrum Holdings R&O* ¶¶ 153-71.

²⁷ See, e.g., Comments of the Competitive Carriers Association, AU Docket No. 14-252, GN Docket No. 12-268, at 19-20 (filed Feb. 20, 2015) (“CCA Comments”); Comments of Cellular South Inc. d/b/a C Spire, AU Docket No. 14-252, GN Docket No. 12-268, at 4 (filed Feb. 20, 2015) (“C Spire Comments”); T-Mobile Comments at 6-8.

that lacks three or more blocks of spectrum that are 15 percent or less impaired.²⁸ Consequently, the Commission's proposal has the potential to foreclose reserve eligible bidders even from certain markets where there is an ample amount (*e.g.*, 70 MHz or more) of spectrum available for auction.

In its initial comments, CCA discussed ways to ensure that each PEA can support a full spectrum reserve without increasing the auction's complexity or length. One such approach is to eliminate the distinction between different "categories" of licenses. As CCA explained, this type of approach would avoid adding complexity to the auction by maintaining its three-clock format: one clock for all licenses that are less than 50 percent impaired before the final stage rule is met; a second clock for reserve spectrum after the final stage rule is met; and a third clock for non-reserve spectrum after the final stage rule is met.²⁹ Nevertheless, there are trade-offs with this approach. For instance, if the difference between low- and moderately impaired licenses is too great (or if the applicable discount is too small), bidders will hedge their bets and not bid more than the value of the most impaired license, which will decrease auction revenues available for clearing spectrum for broadband use, potentially resulting in lower clearing targets. Another approach is simply to allow the spectrum reserve to consist of a PEA's least impaired licenses regardless of whether they are Category 1 or Category 2 licenses. A number of commenters support this option,³⁰ and the Commission has multiple means of implementing it. For example,

²⁸ See CCA Comments at 19-20.

²⁹ See CCA Comments at 20-21.

³⁰ See, *e.g.*, T-Mobile Comments at 6-8; C Spire Comments at 4; CCA Comments at 21-22.

the Commission could modify either the definition of “spectrum reserve” or the definition of “Category 1 license” to include a PEA’s three least impaired licenses.³¹

A few commenters expressed support for a single category of licenses, however, this could be detrimental to the goal of expanding access to low-band spectrum, as demanding all licenses be of exceptionally high quality is likely to deliver a corresponding, exceptionally low *quantity* of low-band spectrum.³² For example, Verizon stresses in its comments that all licenses should be fungible, and AT&T demands that the FCC auction only offer Category 1 licenses in the forward auction.³³ Instead of facing foreclosure based on the excessive price dominant carriers are willing to pay, competitive carriers in this scenario would face foreclosure based on excessive quality of the license offered to all participants that dominant carriers have insisted upon. The Commission should reject the dominant carriers’ attempt to work the same anticompetitive result by artificially constraining the supply of broadband resources whether through the price or nominal “quality” of the licenses being auctioned.

These suggestions would help to ensure that every PEA is able to support a full spectrum reserve regardless of the level of impairments and, as a result, the Commission’s ultimate goal of preventing anti-competitive foreclosure would not be stymied.

³¹ See CCA Comments at 21-22; T-Mobile Comments at 6-8.

³² See, e.g., AT&T Comments at 25-28; Comments of Verizon, AU Docket No. 14-252, GN Docket No. 12-268, at 6-8 (filed Feb. 20, 2015) (“Verizon Comments”); Comments of Mobile Future, AU Docket No. 14-252, GN Docket No. 12-268, at 3 (filed Feb. 20, 2015).

³³ See Verizon Comments at 6-8; AT&T Comments at 24-26.

C. Suggestions to Increase the Price Per MHz-Pop Reserve Trigger or “De-Couple” it from the Final Stage Rule Should be Rejected.

The nation’s largest carriers, which already hold most of the available low-band spectrum, ask the Commission to increase the price per MHz-pop reserve trigger or “de-couple” it from the final stage rule.³⁴ To support these requests, they assert that a *bona fide* foreclosure risk does not currently exist³⁵ and suggest that the proposed \$1.25 price benchmark may be contrary to the Spectrum Act because it could deprive taxpayers of a “portion of the value” of the 600 MHz spectrum.³⁶ However, neither assertion has merit as the record in this proceeding proves. The Commission,³⁷ the Department of Justice,³⁸ and some of the world’s leading economists³⁹ have all concluded that, contrary to Verizon’s assertions, not only is foreclosure risk real, it could derail the 600 MHz incentive auction and the resulting wireless marketplace if left unchecked.

Meanwhile, the proposed \$1.25 price benchmark is more than what is needed to ensure a successful auction and satisfy the Commission’s duties under the Spectrum Act. As a threshold matter, most smaller carriers simply will not be able to afford to bid in the top markets that will be used to determine whether or not the price trigger for the reserve blocks is met. As a result,

³⁴ See AT&T Comments at 32; Verizon Comments at 10-16.

³⁵ See Verizon Comments at 10.

³⁶ See AT&T Comments at 29-30; see also 47 U.S.C. § 309(j)(3)(C).

³⁷ *Mobile Spectrum Holdings R&O ¶¶* 153-171 (“Our conclusion, which accords with the DOJ’s, is that there is a risk of foreclosure.”).

³⁸ DOJ May 4 Ex Parte at 2 (“A foreclosure strategy is not merely theoretical – specific facts about the wireless industry, such as high market concentration, high margins, and scarce critical inputs, make anticompetitive foreclosure more likely.”).

³⁹ Peter Cramton, Lessons from the Canadian 700 MHz Auction, at 10 (2014), *attached to* Letter from Trey Hanbury, Counsel, T-Mobile, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268, WT Docket No. 12-269 (filed Apr. 3, 2014) (explaining why the Commission “should adopt spectrum limits in the 600 MHz auction that prevent the auction from cementing further concentration”).

smaller carriers will likely have no ability to influence whether or not the auction actually satisfies the trigger for the reserve blocks on which their businesses may depend. As the *Auction Comment PN* noted, moreover, any aggregate reserve price set by the Commission need only reflect a “floor” for competitive pricing because the actual prices of 600 MHz licenses will be determined by the forward auction bidding.⁴⁰ As U.S. Cellular observes, that number is based on the average prices generated at the last auction that offered greenfield low-band spectrum licenses⁴¹ and, as a result, will assure that prices in the forward auction “reflect [the licenses’] competitive values.”⁴² Additionally, the suggestion that the 600 MHz incentive auction must maximize revenues to satisfy the Spectrum Act is misguided. First, the forward auction need not maximize revenues to ensure that prices “generally reflect competitive market values”⁴³ or constitute “a portion of the [spectrum’s] value.”⁴⁴ Second, the Commission must balance a number of statutory objectives when designing auction procedures, and auction revenue is only one of the many factors it may consider.⁴⁵ In this case, the Spectrum Act’s funding goals have already been satisfied, and the type of low-band spectrum slated for auction is both critical to competition and highly concentrated in the hands of the nation’s two largest carriers. Therefore, the Commission not only can but should prioritize other statutory imperatives – such as

⁴⁰ See *Auction Comment PN* ¶ 49.

⁴¹ See Comments of U.S. Cellular Corp., AU Docket No. 14-252, GN Docket No. 12-268, at 28 (filed Feb. 20, 2015) (“U.S. Cellular Comments”).

⁴² *Auction Comment PN* ¶49.

⁴³ *Incentive Auction R&O* ¶ 343; see also *Auction Comment PN* ¶ 49.

⁴⁴ 47 U.S.C. § 309(j)(3)(C).

⁴⁵ See 47 U.S.C. § 309(j)(3). Other factors include: promoting wireless competition; avoiding excessive concentration of licenses; disseminating licenses among a wide variety of applicants; ensuring efficient use of spectrum; and encouraging the development and deployment of new technologies and services. *Id.*

promoting competition and avoiding an excessive concentration of licenses – as it finalizes the 600 MHz incentive auction rules.⁴⁶

The Commission should reject these requests and either eliminate or reduce the second, price per MHz-pop reserve trigger.⁴⁷ The final stage rule’s first reserve trigger requiring the payment of all statutory expenses will ensure that the 600 MHz incentive auction meets all of the revenue goals established by Congress. The mere presence of a second, price per MHz-pop reserve price has the potential to discourage participation by smaller carriers and increases the risk of auction failure.⁴⁸ As Professor Cramton has explained, “an attempt by the seller to extract additional revenues . . . discourages participation, which ultimately reduces revenues.”⁴⁹ Additionally, as U.S. Cellular observes, a higher price benchmark “would risk thwarting the various public interest benefits that otherwise should arise from the spectrum reserve.”⁵⁰

⁴⁶ As the Commission has explained, the Spectrum Act requires it to “balance several statutory objectives” and “does not preclude regulation that may serve one of these objectives more than another.” *Service Rules for the 698-746, 747-762 & 777-792 Bands*, Second Report and Order, 22 FCC Rcd 15289 ¶ 215 (2007). The D.C. Circuit has endorsed this interpretation, noting that “only the Commission may decide how much precedence particular policies will be granted when several are implicated in a single decision.” *Melcher v. FCC*, 134 F.3d 1143, 1154 (D.C. Cir. 1998).

⁴⁷ See, e.g., CCA Comments at 31-33; T-Mobile Comments at 39-40; CCA, Petition for Reconsideration, GN Docket No. 12-268, at 4-12 (filed Sept. 15, 2014) (“CCA Petition for Reconsideration”).

⁴⁸ See, e.g., CCA Comments at 31-33; CCA Petition for Reconsideration at 4-12.

⁴⁹ Peter Cramton, *Ascending Auctions*, 42 EURO. ECON. REV. 745 (1998), available at <http://bit.ly/WC6wiP>.

⁵⁰ U.S. Cellular Comments at 30.

D. The Spectrum Reserve’s Maximum Size Should be Expanded from 30 Megahertz to 40 Megahertz.

As T-Mobile and DISH explain, the Commission can increase the pro-competitive effects of the reserve by increasing its maximum size from 30 MHz to 40 MHz.⁵¹ Specifically, the Commission should increase the amount of reserved spectrum by 10 MHz for each Initial Clearing Target and, at the same time, decrease the amount of unreserved spectrum by a corresponding 10 MHz. By doing so, the Commission would increase the maximum amount of reserved spectrum in a PEA to 40 MHz in scenarios in which 70 MHz of spectrum or more is cleared, which would promote competition by allowing two reserve-eligible bidders to each acquire 20 MHz of contiguous low-band spectrum.

Expanding the spectrum reserve’s maximum size would also let the Commission meet the statutory mandates of “avoiding an excessive concentration of licenses” and “disseminating licenses among a wide variety of applicants.”⁵² As T-Mobile points out, the spectrum reserve’s current size is “inadequate to sustain a wireless market with four nationwide providers and robust rural and regional competition” because it would let AT&T and Verizon divide 40 MHz of unreserved spectrum evenly between them.⁵³ In other words, the two largest carriers which already hold the most low-band spectrum would be able to out-bid their competitors and, in doing so, foreclose them from the low-band resources they need to “expand coverage and to

⁵¹ See T-Mobile Comments at iii; Letter from Jeffrey H. Blum, Senior Vice President & Deputy General Counsel, DISH Network to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268, WT Docket No. 14-170 at 2-3 (filed Feb. 23, 2015); *see also* CCA Comments at 29.

⁵² See 47 U.S.C. § 309(j)(3).

⁵³ See T-Mobile, Petition for Reconsideration, WT Docket No. 12-269, at 7-12 (filed Aug. 11, 2014).

compete in the wireless marketplace.”⁵⁴ The recent AWS-3 auction confirms that this outcome is the most likely scenario, with AT&T and Verizon again outspending all other carriers and capturing the majority of the valuable, paired licenses.⁵⁵ To help ensure that competitive carriers are not similarly foreclosed from their only opportunity to acquire low-band spectrum in the foreseeable future, the Commission should expand the spectrum reserve’s maximum size to 40 MHz per PEA.

III. MODIFICATIONS TO THE ASSIGNMENT ROUND CAN HELP ENSURE AN EQUITABLE DISTRIBUTION OF LICENSES.

While the Commission has adopted the spectrum reserve to encourage competitive access for smaller carriers during the clock phase, it has not proposed analogous competitive safeguards for the assignment round. As C Spire observes, the proposed assignment round process could expose smaller, regional carriers to foreclosure strategies by the two dominant carriers that could undermine competition.⁵⁶ Carriers without national footprints risk acquiring low-band licenses that are too impaired to provide coverage and may be relegated to the least desirable channels

⁵⁴ *Auction Comment PN ¶ 153.*

⁵⁵ *See Auction of Advanced Wireless Services (AWS-3) Licenses Closes – Winning Bidders Announced for Auction 97*, Public Notice DA 15-131, Attach. B (WTB, rel. Jan. 30, 2015) (showing that AT&T and Verizon combined to spend over \$28 billion at auction,). As the Public Interest Spectrum Coalition explains, AT&T and Verizon used the AWS-3 auction to solidify their dominant positions by acquiring almost all of the valuable 20-megahertz J Block spectrum. *See Letter from Public Interest Organizations to Chairman Tom Wheeler*, GN Docket No. 12-268, WT Docket No. 12-269 (filed Feb. 24, 2015). Specifically, the two dominant carriers each acquired 20 MHz of paired spectrum in most of the top markets and “left the rest of the industry with only a smattering of paired blocks and 15 megahertz of low-value, unpaired, uplink spectrum.” *Id.* at 1. In so doing, the two continued “a pattern of parallel accommodating conduct seen in prior spectrum auctions and secondary-market transactions” which allows them to raise prices without offering consumers better terms. *Id.* at 1-2 n.1.

⁵⁶ *See C Spire Comments at 6.*

that are adjacent to broadcast television stations.⁵⁷ Similarly, the Commission proposed to conduct bidding for specific frequencies grouped by different geographic areas in each assignment round.⁵⁸ As Sprint notes, however, bidders may prefer unimpaired licenses in some markets and be indifferent as to impairment in others.⁵⁹ Pre-grouping of PEAs would eliminate bidders' ability to express those preferences.⁶⁰ For example, carriers may wish to prioritize PEAs where obtaining more deployment-ready unimpaired spectrum is more critical over PEAs where an operator would be more tolerant of impairment.⁶¹

The Commission could add corrective safeguards for the assignment phase to help ensure that smaller, competitive carriers, because of their limited resources compared to the two largest carriers, are not shut out from obtaining high-quality spectrum in their PEAs. For example, the FCC could adopt U.S. Cellular's proposal to add a fourth efficiency objective which minimizes the difference in the level of average impairment "across the number of generic licenses held by each bidder, between the Category 1 licenses assigned to any two bidders, as well as between the Category 2 licenses assigned to any two bidders."⁶² The Commission should also consider quasi-random assignment instead of assigning blocks based on competitive bidding. Finally, if the Commission does decide to implement an assignment auction, it should safeguard competitive access by assigning reserve licenses before non-reserve licenses and institute a draft

⁵⁷ See CCA Comments at 35-37; U.S. Cellular Comments at 7-23.

⁵⁸ See Auction Comment PN ¶ 201-02.

⁵⁹ See Sprint Comments at 32-33.

⁶⁰ See *id.*

⁶¹ See *id.*

⁶² U.S. Cellular Comments at 12-16.

mechanism that would guarantee all bidders a baseline level of access to their preferred frequencies.⁶³

A. Following Application of the Pre-Assignment Round Objectives, the Commission Could Assign Spectrum Licenses Randomly During the Assignment Phase.

Randomly assigning frequencies would also help eliminate the structural advantages that larger carriers would enjoy under the Commission’s current proposal. As U.S. Cellular observes, smaller bidders will have difficulty outbidding a nationwide carrier focused on acquiring particular blocks in a PEA; as a result, smaller bidders “could be relegated to the most impaired licenses included in the particular category of generic licenses.”⁶⁴ This systemic disadvantage mirrors the anti-competitive concerns that led the Commission to adopt the spectrum reserve and reject package bidding and echoes arguments in favor of including the least impaired spectrum in that reserve. That is, smaller carriers require unimpaired spectrum to gain market entry and offer truly competitive services, but dominant carriers are incentivized to acquire unencumbered spectrum as a means of foreclosing meaningful competition from would-be competitors. This tension is amplified for “singleton” provisionally winning bidders that cannot mitigate spectrum impairments by relying on a less encumbered license within the same PEA.

An additional bias in favor of large carriers would be created by the Commission’s proposal to first assign frequencies in “high-demand” PEAs, in descending order of weighted-pops, before assigning frequencies in non-high demand PEAs, again in descending order of weighted-pops. This sequencing scheme is intended to address “the complexity for the bidder and the auction system that would be inherent in considering simultaneously the preferences of multiple bidders for various configurations of Category 1 and Category 2 license blocks in

⁶³ CCA Comments at 38-40.

⁶⁴ U.S. Cellular Comments at 7.

hundreds of PEAs.”⁶⁵ A likely consequence of this sequencing arrangement, however, will be the exclusion of local and regional carriers from the early assignment rounds because many of these carriers will not have won—or will not have sought in the first place—licenses in high-demand PEAs. Multi-license, multi-market carriers will thus be given a head start to establish their frequency preferences in a number of important markets before smaller carriers can meaningfully participate in the assignment process. This sequencing advantage will be amplified if the Commission ultimately decides to add some degree of inter-market frequency contiguity to its optimization algorithms because this approach would extend established footprints into markets where smaller carriers are actively bidding for assignments.⁶⁶ Furthermore, larger carriers will accrue an informational advantage during the high-demand assignment rounds that will benefit them in later, non-high demand rounds.⁶⁷ Specifically, larger carriers will gain information and experience about successful assignment round strategies in each assignment round that they participate, and will have participated in a large number of assignment rounds before smaller bidders first enter this phase of the auction.⁶⁸

A quasi-random assignment phase will lessen the advantages larger auction participants would enjoy and provide all carriers an equal opportunity to receive their preferred frequency assignments. This approach could continue to integrate the Commission’s proposed efficiency objectives, but without the biases that would be introduced by competitive bidding following the

⁶⁵ *Auction Comment PN ¶ 201.*

⁶⁶ *See T-Mobile Comments at 47-49; CCA Comments at 40-41.*

⁶⁷ *See U.S. Cellular Comments at 20-21.*

⁶⁸ *See id.* (noting that “[b]ecause this will be the first spectrum auction in this country that includes an assignment phase, bidders currently lack the information and experience needed to accurately estimate the bid amount that will provide them with a reasonable chance of success”).

application of the efficiency objectives. As the record shows, a quasi-random approach will also increase auction revenues during the clock phase by relieving bidders of the need to hold back capital for the assignment rounds.⁶⁹ Commenters have also argued that quasi-random assignment will significantly simplify the assignment process,⁷⁰ obviating the need for back-end fixes like the assignment round sequencing scheme which can produce unintended, anticompetitive effects. Together, these biases and inefficiencies counsel against the use of competitive bidding to assign frequencies following the close of forward-round bidding.

B. If the Commission Instead Opt to Employ an Assignment Auction, Alternative Mechanisms Could Help Prevent Foreclosure.

If, however, the Commission decides to use supplemental bidding during the assignment phase, it must structure the bidding process to optimize competitive entry and efficient spectrum deployment by non-dominant carriers. The Commission should separately assign reserve and non-reserve licenses during assignment-round bidding. Reserve-eligible bidders should be able to express their preferences without the risk of foreclosure from the dominant carriers.

Alternatively, the Commission could implement CCA's proposed "draft pick" feature that would give all provisionally winning bidders a certain number of primary selection awards that they could use to preference specific frequencies in lieu of an assignment round bid.⁷¹ This feature would allow smaller carriers to establish a foothold in at least some markets and eliminate the risk that they will be systematically outbid for unimpaired blocks in their planned operating regions. The value of these draft picks could then be transformed into higher bids during the

⁶⁹ See CCA Comments at 38; C Spire Comments at 6; U.S. Cellular Comments at 9-11.

⁷⁰ See CCA Comments at 37-38; C Spire Comments at 6.

⁷¹ See CCA Comments at 38-40.

clock phase, driving revenue out of the assignment round and back into the forward auction, where it will help to clear more spectrum for broadband use.⁷²

IV. THE COMMISSION SHOULD ELIMINATE IMPAIRMENTS IN A LOGICAL MANNER THAT MAXIMIZES USEFUL BROADBAND SPECTRUM.

A. Channel 51 Should Be the First Station Out of and the Last Station In any 600 MHz Band Plan.

Any spectrum clearing in the 600 MHz band must prioritize the relocation of Channel 51 encumbrances out of the band.⁷³ Continued broadcast operations on Channel 51 will impair not only 600 MHz broadband operations, but also 700 MHz broadband operations. Given the problematic nature of Channel 51 for two separate sets of broadband frequencies, broadcast stations located on Channel 51 should be the first out of the 600 MHz band and, in the case of severe market impairments, the last channel within the 600 MHz band that is permitted to remain.

B. The Channel-Stacking Plan Proposed By CCA Offers More Predictability, Utility, And Efficiency For Broadband Operations Than the Alternatives.

Commenters want consistency, clarity, and predictability in a band plan.⁷⁴ In the 600 MHz incentive auction, however, spectrum-clearing will vary nationwide and, under certain circumstances, the Commission will likely need to place remaining television broadcast stations

⁷² Additionally, if an assignment round is used, then the additional price a bidder pays for a specific frequency should be calculated consistent with the Commission’s proposed “second price” approach. *See Auction Comment PN ¶ 208*. CCA agrees that determining prices in this manner incentivizes bidders to bid their full value for the spectrum because “if the assignment is selected, they will pay no more than would have been necessary to ensure that the assignment won.” *See id.*

⁷³ *See, e.g.,* CCA Comments at 7; C Spire Comments at 3-4; Verizon Comments at 19-20.

⁷⁴ *See, e.g.,* AT&T Comments at 3; Comments of CTIA – The Wireless Association®, AU Docket No. 14-252, GN Docket No. 12-268, at 5 (filed Feb. 20, 2015) (“CTIA Comments”); Comments of Sprint Corp., AU Docket No. 14-252, GN Docket No. 12-268, at 39-40 (filed Feb. 20, 2015) (“Sprint Comments”).

in the 600 MHz band, which will impair wireless broadband licenses.⁷⁵ Use of CCA’s channel stacking plan⁷⁶ will help provide a measure of predictability and consistency in the band plan while still maximizing the amount of broadband spectrum available by reducing the effects of unavoidable impairments.⁷⁷ Under CCA’s channel-stacking plan, spectrum-clearing will still vary from market-to-market, but identifying the location of impairments prior to the auction will ease administrative burdens of the auction by performing a large portion of the work upfront, while informing all bidders about the precise position of impairments within a band plan in every market.⁷⁸

Implementation of the channel stacking plan would be relatively straightforward. The Commission would adopt a specific method of accommodating broadcast encumbrances for each spectrum-clearing scenario. In other words, the precise channel location of broadcast encumbrances would vary depending on the band plan the auction process selects, but once a spectrum clearing target is chosen every PEA in the country would follow the same method of accommodating encumbrances. If, for example, the final stage rule were satisfied at 84 MHz of cleared spectrum and a PEA has one TV station that had to be accommodated within the 600

⁷⁵ See Section V.B, *supra*.

⁷⁶ See CCA Comments at 3-8.

⁷⁷ See, e.g., Comments of the Public Broadcasting Service, Association of Public Television Stations, and Corporation for Public Broadcasting, AU Docket No. 14-252, GN Docket No. 12-268, at 2 (filed Feb. 20, 2015 (urging the Commission “not to assign any repacked television stations to the repurposed 600 MHz wireless band and to instead maintain a contiguous television band”); Verizon Comments at 17 (“Wherever it is impossible to avoid repacking a broadcaster into a portion of the repurposed spectrum, the Commission should only place the broadcaster in the uplink portion of the mobile band plan – not in its downlink, duplex gap, or guard band spectrum.”).

⁷⁸ Additionally, if Sprint’s suggestion to use the F(50,10) curves were adopted, this refined data would help bidders make more informed decisions, provide more accurate bid discounts, and limit forward auction bidders’ exposure risk. See Sprint Comments at 16-22.

MHz band, then that TV station would be positioned within the duplex gap nearest to the uplink channel, which would impair the immediately adjacent uplink channel, but only partially so. If another PEA had two TV stations that had to be accommodated within the 600 MHz band, the first station would again be placed in the duplex gap and the second station would be positioned in the immediately adjacent uplink channel.⁷⁹ Encumbrances will vary from market to market, but the *pattern* of stacking broadcast channels would remain consistent across every PEA for any given spectrum-clearing target. While most PEAs in the country will ideally have few, if any, encumbrances, CCA's channel-stacking plan allows every bidder in every PEA to know where encumbrances would appear within the band based simply on the relevant spectrum-clearing target.

This approach maximizes the available utility of spectrum by: (1) taking advantage of duplex and guard band spectrum where available;⁸⁰ (2) recognizing that, in most cases, placing spectrum in the uplink least interferes with broadband deployment;⁸¹ and (3) preventing the impairment of all available uplink spectrum, which would eliminate the paired blocks that are critical for competitors and new entrants that hold little, if any low-band spectrum.⁸² The channel-stacking plan would also allow bidders to predict impairment locations and

⁷⁹ See Exhibit A; see also CCA Comments at 7 (providing a chart that details different clearing target and impairing station scenarios).

⁸⁰ See, e.g., AT&T Comments at 28.

⁸¹ See, e.g., T-Mobile Comments at 10-15; Verizon Comments at 17-18.

⁸² See, e.g., Comments of the National Association of Broadcasters, GN Docket No. 12-268, AU Docket No. 14-252, at 11 (filed Feb. 20, 2015) ("NAB Comments") (noting the importance of paired and unpaired spectrum).

consequences prior to the auction with knowledge of the spectrum-clearing target, or the number of impairments in a market and their precise geographic location within a given PEA.⁸³

CCA's channel stacking plan contemplates partial impairment of the downlink spectrum *after* the corresponding uplink is encumbered. While Verizon correctly notes that there are "no filter-based solutions that can eliminate uplink interference into the handsets' receivers,"⁸⁴ most of the band plans contemplated by the 600 MHz incentive auction will require more than one duplexer. The use of multiple duplexers will allow carriers to rely on the channels that use a duplexer not impaired by downlink interference when some of the downlink channels in a market are impaired.⁸⁵ Thus, while downlink impairments are generally more undesirable than uplink impairments, sound spectrum management may occasionally dictate the placement of TV stations in the downlink as a result of: (1) efficiencies gained through the use of available guard band or duplexer spectrum to accommodate the impairment; (2) the potential for eliminating all uplink channels in the band; or (3) the need for multiple duplexers to provide interoperable service at a given spectrum-clearing target, which will avoid across-the-band channel impairment for all blocks in a limited area due to a single impaired downlink channel.

While commenters may disagree on how to accommodate impairments, the Commission should, above all, reject demands for a uniform band plan from a handful of parties.⁸⁶ Insisting

⁸³ Although the FCC's plan may secure more MHz-POPs under certain conditions, CCA's plan would allow for more informed bidding and more readily accommodate network and device design without having to adjust those plans on a market-to-market basis (which may cause unexpected costs and delays).

⁸⁴ Verizon Comments at 18.

⁸⁵ The Commission should be vigilant, however, not to allow multiple duplexers to thwart the strong interoperability requirement adopted in the Report and Order.

⁸⁶ *See, e.g.*, Verizon Comments at 4-6; NAB Comments at 6-11; Comments of Sinclair Broadcast Group, Inc., AU Docket No. 14-252, GN Docket No. 12-268, at 1-5 (filed Feb.

on a uniform band plan in all or most locations would severely limit the amount of spectrum that the incentive auction makes available for LTE deployment. The purpose of the Commission's decision to adopt a variable band plan was to ensure that markets that could clear significant spectrum are not limited by the market capable of clearing the least.⁸⁷ CCA explained in its initial comments that the ideal reconfiguration of the 600 MHz band would produce broadband licenses that are completely unimpaired by any broadcast television operations.⁸⁸ But as the Commission has explained, a certain minimum level of impairment is necessary for the incentive auction to meet appropriate spectrum clearing targets.⁸⁹ Given that reality, CCA's channel-stacking plan would allow the Commission the flexibility it needs to maximize the utility and efficiency of repurposed spectrum, while providing participants the transparency that they require to bid confidently in the auction.

V. MODIFYING CERTAIN AUCTION PROCEDURES CAN SIMPLIFY THE AUCTION, MAXIMIZE THE AVAILABILITY OF BROADBAND SPECTRUM, AND MINIMIZE IMPAIRMENTS.

The Commission should make discrete adjustments to its proposed auction procedures to increase the likelihood of a successful allocation of 600 MHz frequencies to the highest valued use. Establishing a band plan that maximizes usable spectrum will promote investment and innovation in next-generation wireless broadband, and using the weighted-pops metric will support that goal. Similarly, dynamic reserve pricing will allow the Commission to adopt higher

20, 2015) ("Sinclair Broadcast Group Comments"). These parties, however, have glaringly apparent self-interests in not clearing much low-band spectrum. For instance, the dominant carriers would benefit by keeping their competitors from acquiring low-band resources that they already control in abundance.

⁸⁷ See Ruth Milkman, *A Band Plan that Serves the Public Interest*, FCC Blog (June 21, 2013, 10:10 AM), <http://www.fcc.gov/blog/band-plan-serves-public-interest>.

⁸⁸ See CCA Comments at 3.

⁸⁹ *Auction Comment PN ¶ 32.*

opening prices in the reverse auction, thereby promoting greater participation from auction-eligible broadcasters. Relatedly, the Commission can ensure vigorous participation from competitive carriers in the forward auction by adopting bidding activity and bid increment rules that are not overly burdensome for smaller carriers.

A. Using Proposed Principles for Determining Impairments and Weighted-Pops Can Help Maximize Available Spectrum and Simplify Auction Administration.

Commenters broadly support using a high initial clearing target with limited impairments.⁹⁰ Despite naysaying from those who have the most to gain from clearing the least amount of spectrum,⁹¹ every market signal to date indicates that carriers of all sizes will place an exceptionally high demand on this critical low-band spectrum.⁹² Establishing the highest spectrum-clearing target that still allows for economies of scale will promote competition while ensuring that the Commission does not leave any spectrum “on the table” that could have been repurposed for wireless broadband.

In its comments, CTIA identifies a reasonable set of high-level principles to guide the Commission as it considers rules to bring significant spectrum to market while attempting to manage potential impairments.⁹³ Specifically, CTIA encourages the Commission to: (1) ensure

⁹⁰ See, e.g., CTIA Comments at 21; LocusPoint Networks Comments at 8-9; Comments of Local Media TV Holdings, LLC, AU Docket No. 14-252, GN Docket No. 12-268, at 8 (filed Feb. 20, 2015) (“LMTV Comments”).

⁹¹ See, e.g., Verizon, Transcript of FCC Spectrum Auction Results Discussion, at 5 (Feb. 17, 2015) (“[W]e have the spectrum to meet the growth needs of our business, and our future plans do not require us to acquire large blocks of spectrum in the near term.”), available at <http://bit.ly/1E1kYPP>.

⁹² See, e.g., LMTV Comments at 8 (pointing to the AWS-3 auction as evidence of high demand); Kagan White Paper at 36 (noting the multiple factors that will create “irresistible drivers for carriers to [participate in the incentive auction] and bid hard for the spectrum that suits their needs.”).

⁹³ See CTIA Comments at 6.

that major markets are not overly impaired; (2) differentiate cross-border impairments from other license impairments; (3) provide more information on and possibly adjust the price index used to calculate impairments; and (4) consider a near-nationwide threshold of lower than 20 percent (or adopt an alternative metric).⁹⁴

Although parties may differ on details, CTIA's principles support a measured, context-sensitive approach to impairments and help to foster a generally consistent band plan nationwide. For example, as CCA and others note, offering reasonably consistent access to low-band spectrum across a majority of the major markets remains critical to providing a consistent end-user experience.⁹⁵ Consequently, the Commission should ensure that a critical mass of top markets have sufficient spectrum available to allow for economic deployments and scale by, for example, adopting a target that limits potential impairments to no more than 20 percent of the weighted-pops in at least five of the largest 10 PEAs.⁹⁶ The use of additional constraints on impairments will help ensure sufficient economies of scale to allow for timely and cost-effective deployment of broadband services.

Likewise, not all impairments are equal. As CTIA notes, for instance, cross-border license impairments that protect incumbent broadcast stations in Canada or Mexico are unavoidable and should not be treated the same as impairments in other markets.⁹⁷ Meanwhile, merely limiting potential impairments to no more than 20 percent of the nation's weighted-pops would allow several undesirable auction outcomes. For example, such a constraint would, on its

⁹⁴ *Id.*

⁹⁵ *See, e.g.,* CCA Comments at 11; CTIA Comments at 7-8; T-Mobile Comments at iv..

⁹⁶ *See, e.g.,* CCA Comments at 10-12; CTIA Comments at 7-8. *See also* T-Mobile Comments at 18 (urging the Commission to ensure that there are at least four licenses available in at least nine of the 10 top PEAs, regardless of the clearing target).

⁹⁷ *See* CTIA Comments at 8.

own, allow either all of the country’s rural markets to be completely impaired or, alternatively, its few largest markets to be completely impaired.⁹⁸

Additionally, an essential element of any plan to manage potential impairments is the use of weighted-pops.⁹⁹ As explained in CCA’s comments, using weighted-pops will simplify auction administration while providing for market variation.¹⁰⁰ Only one party, NAB, objects to the use of weighted-pops, but NAB’s objections are difficult to fathom and seem internally inconsistent.¹⁰¹

On the one hand, NAB opposes weighting because it could yield *too much* variability among markets to allow for economically efficient LTE deployments.¹⁰² On the other hand, NAB opposes weighting because it could yield *too little* variability, and in ways might somehow undervalue the residents of areas that have historically experienced lower demand for spectrum relative to those located in areas that have historically experienced higher demand for spectrum.¹⁰³ As NAB puts it, “each person is [sic] Buffalo counts for only four percent of themselves” once weighting is taken into account.¹⁰⁴ While it is difficult to understand NAB’s precise objection to the use of standard statistical weighting, NAB is correct that impairments in

⁹⁸ CTIA Comments at 9.

⁹⁹ See, e.g., C Spire Comments at 2-3; CCA Comments at 8-9.

¹⁰⁰ CCA Comments at 8-9.

¹⁰¹ See NAB Comments at 9-10. A number of commenters, including CCA, share NAB’s concerns that the 20 percent nationwide standard could allow key markets to be overly impaired, and therefore propose limitations on variability to ensure most major markets are part of the clearing target. See, e.g., CCA Comments at 10-12; CTIA Comments at 7-8.

¹⁰² See NAB Comments at 9-10.

¹⁰³ See *id.*

¹⁰⁴ *Id.* at 9.

larger markets with historically high demand for spectrum can have an outsized effect on the economic viability of a particular band plan, whether or not the band plan is considered “nearly-nationwide.”¹⁰⁵

For these reasons, CCA and many other commenters have asked the Commission to utilize weighted pops, while at the same time adopting limitations on the 20% impairment threshold that would help ensure a critical mass of high impact markets remain available in any band plan.

B. Dynamic Reserve Pricing Offers a Flexible Mechanism for Determining Initial Bids in the Reverse Auction.

Employing Dynamic Reserve Pricing (“DRP”) without limitation in the 600 MHz incentive auction would be bad, but not using a mechanism like DRP would be worse. An auction only functions if bidders compete for what the auctioneer is selling. In the reverse auction, the auctioneer is “selling” financial payments and the broadcasters are securing that payment by surrendering their broadcast licenses. In most markets, multiple broadcasters will compete for payment, which will result in the Commission paying fair market value. In some markets, however, only one broadcaster will compete for payment, which poses a significant challenge for the Commission. If the Commission were to pay reverse-auction participants without competitive bidding, it would have less revenue available to clear additional broadcast spectrum for broadband use. If the Commission were to lower the opening price paid to

¹⁰⁵ Contrary to NAB’s implication, weighting does not make any estimation of the character of the population of Buffalo, but rather makes a determination of the *relative* importance of clearing that particular market as a component to ensuring sufficient scale economies to make broadband economically viable in the 600 MHz band throughout the United States, including Buffalo and similarly-situated areas.

broadcasters, however, it may underestimate the exit payment that broadcasters seek, which would clear less spectrum for broadband use.

Many broadcast stakeholders acknowledge the conundrum of reverse-auction opening bids.¹⁰⁶ EOBC, for instance, appears to recognize that broadcasters are both potential beneficiaries and victims of missteps in setting opening prices.¹⁰⁷ Broadcasters would benefit if the Commission were to maintain high opening bids even in markets with little or no competition among broadcasters, but would suffer if the Commission were to lower opening bids across the board to avoid depleting the available funds and clearing less broadband spectrum due to overpayments in markets with little or no competition in the reverse auction. “It is understandable,” LocusPoint writes, “that the Commission seeks to avoid paying a station an amount unrelated to the price it is truly willing to accept.”¹⁰⁸

Several broadcast interests, however, operate on the faulty assumption that the Commission will continue to offer high opening bids notwithstanding the prospect of rapid depletion of available funds as a result of exceptionally high payments to broadcasters in no- or

¹⁰⁶ LocusPoint Networks Comments at 7 (noting the Commission’s “understandable” impulse not to overpay or underprice in the reverse auction); EOBC Comments, Exhibit B, Cramton et al., *Design of the Reverse Auction in the FCC Incentive Auction*, 8 (Feb. 2015) (noting the need for some type of administrative pricing because “there will inevitably be a handful of stations where there is an absence of competition”); Comments of Trinity Broadcasting Network, GN Docket No. 12-268, AU Docket No. 14-252, at 4 (Feb. 20, 2015) (“Trinity Broadcasting Networks Comments”) (acknowledging the Commission’s “understandable desire to avoid an anomalous situation wherein a station’s clearing price is unrelated to the price a station is truly willing to accept”); *see also* LMTV Comments at 3 (recommending additional transparency when DRP begins and ends).

¹⁰⁷ EOBC Comments at 5 (proposing a “more targeted” mechanism to determine reverse-auction pricing situations where broadcasters face “little or no competition in the auction”).

¹⁰⁸ LocusPoint Networks Comments at 8.

low-competition markets.¹⁰⁹ These stakeholders seem to have decided that the likelihood of winning exceptionally high payments for some broadcasters outweighs the risk that the Commission will lower opening bids for all broadcasters across the board and clear less spectrum for broadband use.¹¹⁰ The possibility of allowing selective encumbrances to the 600 MHz band using DRP, in this slanted view, would violate “trust” or lack “clarity.”¹¹¹ As a threshold matter, uncertainty about the ultimate pricing offered to broadcasters is a function of the reverse auction itself, not DRP. Bidders in markets with multiple reverse-auction competitors cannot “trust” opening bids or be “clear” about the ultimate outcome: competitive bidding will lower the ultimate prices that broadcasters receive to levels determined through bidding. Why should bidders that do *not* face competitive bidding warrant special assurances that the bidders facing competitive pressure never receive? More importantly, the assumption that the Commission will be willing – or even able to – maintain high opening bids notwithstanding exceptionally large payments to some broadcasters is false. Without DRP, the Commission will have no choice but to clear less spectrum or start opening bids in the reverse auction at a lower level than would otherwise be possible to avoid excess payments in markets where there are no other broadcasters competing for reverse auction funds.

The Commission should, however, remain open to ideas similar to DRP that achieve the same goals sought to be achieved by DRP—or at a minimum clarify when and how DRP will

¹⁰⁹ See, e.g., NAB Comments at 4 (asserting that there is no basis “to avoid paying ‘too much’ to broadcasters in the reverse auction”).

¹¹⁰ See, e.g., NAB Comments at 4.

¹¹¹ Comments of Media General, Inc., GN Docket No. 12-268, AU Docket No. 14-252, at 3 (filed Feb. 20, 2015); Comments of Milachi Media, LLC, GN Docket No. 12-268, AU Docket No. 14-252, at 5 (filed Feb. 20, 2015); Sinclair Broadcast Group Comments at 9; Trinity Broadcasting Network Comments at 3-4; *see also* EOBC Comments at 4; LocusPoint Networks Comments at 7.

apply. As CCA noted in its comments, using DRP risks introducing more encumbered spectrum into the 600 MHz band plan than carriers might desire.¹¹² CCA is thus reviewing EOBC's Round Zero Reserve ("RZR") proposal to determine whether it offers a workable solution to the problem of broadcast stations becoming frozen in the first round of the reverse auction.¹¹³ While some questions surrounding the proposal are as of yet unanswered (such as the formula for determining RZR prices¹¹⁴ and whether the clearing target is achievable in light of cross-border broadcast stations¹¹⁵), CCA appreciates the thoughtful analysis undertaken by EOBC on this subject and its stated objective of maximizing the amount of unimpaired spectrum to be made available for the forward auction. As EOBC and LocusPoint have both acknowledged, DRP, RZR or some other mechanism is needed to overcome the vexing – and widely acknowledged – challenge of setting opening bids in the reverse auction in a way that maximizes both broadcaster participation *and* spectrum-clearing for broadband.

AT&T's opposition to DRP, however, is more coldly cynical. AT&T, which together with Verizon controls 73% of all low-band resources today, will benefit if the incentive auction clears less spectrum than might otherwise be possible through the use of DRP. Clearing less low-band spectrum for broadband use means fewer potential rivals will have access to the resources necessary to compete with AT&T on the basis of the wide-area and in-building

¹¹² CCA Comments at 14.

¹¹³ See EOBC Comments at 32-39; Cramton Study at 8-10, 41-42.

¹¹⁴ Cramton Study at 9.

¹¹⁵ See Peter Cramton *et al.*, *Design of the Reverse Auction in the FCC Incentive Auction*, at 11 (Mar. 12, 2015), attached to Reply Comments of Expanding Opportunities for Broadcasters Coalition, AU Docket No. 14-252, GN Docket No. 12-268, as Attach. A (filed Mar. 12, 2015) (noting that simulations using RZR have resulted in impairments that are "minimal, aside from unavoidable impairments caused by foreign TV broadcast in border markets.").

coverage that low-band spectrum makes economically feasible. While all forward-auction bidders would naturally prefer the opportunity to acquire a large amount of wholly unimpaired low-band spectrum, there likely will not be a forward auction if broadcasters are sidelined due to low opening prices resulting from the demands of those reverse-auction participants in supply-constrained markets. AT&T's recalcitrance on this point seems designed to frustrate the assignment of more low-band spectrum resources to competitors that need access to this critical resource.¹¹⁶ The Commission should reject AT&T's attempt to constrain the availability of low-band spectrum resources for broadband deployment through ostensible concerns about the potential for even the most minor impairments of the 600 MHz band as a result of DRP, RZR, or other similar mechanism..

C. Modifying Other Rules Relating to Bidding Activity and Bid Increments Will Avoid Disadvantaging Smaller Carriers During the Forward Auction.

The Commission should modify several discrete rules that threaten to harm smaller bidders. The currently proposed bidding activity rule, for example, would harm competitive carriers by requiring them to “be active on between 92 and 97 percent of their bidding eligibility in all regular clock rounds.”¹¹⁷ As CCA described in its comments, this high activity requirement would limit certain inter-region switching strategies, which smaller regional bidders are more likely to employ.¹¹⁸ C Spire shared CCA's concern about bidding activity rules, urging

¹¹⁶ See *supra* II.B (explaining that, in this scenario, competitive carriers would face foreclosure based on excessive quality of the license offered to all participants that dominant carriers have insisted upon).

¹¹⁷ *Auction Comment PN* ¶ 186.

¹¹⁸ See, e.g., CCA Comments at 15-17.

the Commission to instead adopt an 80 percent threshold that has been effective at expediting past auctions.¹¹⁹

Relatedly, adopting high opening bids and bid increments could prove overly burdensome to smaller competitive carriers, and ultimately reduce competition in the auction and depress auction revenues. While most of the discussions in the record relating to bidding increments have been focused on the reverse auction, there are clear corollaries to the forward auction, and many of the principals are equally applicable in both processes. For example, EOBC points out that smaller bid increments can help prevent “over shooting” a broadcaster’s walkaway price.¹²⁰ While intra-round bidding in the forward-round auction offers some protection, forward-auction bidders could still find themselves disadvantaged during the process, especially if scrupulous protections against public disclosure of bidding data are not observed. Relatedly, offering high opening prices for broadcasters bidding in the reverse auction could have a direct analog in low opening prices for broadband providers bidding in the forward auction—both are premised on encouraging broad-based participation. Excessively low opening bid prices in the reverse auction and excessively high opening bids in the forward auction pose the same basic risks: tepid support, foreclosed opportunity, and ultimately auction failure.

Finally, as other commenters suggest, the FCC should also allow additional time between the auction’s phases.¹²¹ Each phase of this “once in a lifetime” auction will require substantial preparation, even for experienced bidders. The assignment phase will be particularly critical to

¹¹⁹ C Spire Comments at 5-6. *See also* Sprint Comments at 50-52; U.S. Cellular Comments at 32 (recommending that, in lieu of activity rule waivers, the Commission “take other actions designed to reduce the likelihood that bidders will have their eligibility reduced as a result of time constraints largely outside of their control”).

¹²⁰ EOBC Comments at 45-47.

¹²¹ *See, e.g.*, LocusPoint Networks Comments at 12; Sprint Comments at 49-50.

winning bidders, and they will need to review the relative impairments of each license block and align those blocks with their spectrum needs. In its comments, CTIA has urged the Commission to allow at least two weeks between the end of clock phase and the beginning of the assignment phase.¹²² Adopting CTIA’s proposed intra-phase bidding proposal, should the Commission not adopt a quasi-random assignment process would allow bidders to make more informed decisions about their bids and will help ensure assignments of 600 MHz blocks to the bidders best able to contribute to the deployment of wireless broadband throughout the United States.¹²³

CONCLUSION

As CCA noted in its comments, the 600 MHz incentive auction presents a “once-in-a-lifetime opportunity” to repurpose large swaths of critical low-band spectrum for mobile broadband use.¹²⁴ As it clear from the record, the auction framework proposed by the Commission is fundamentally sound. However, the Commission must ensure that the auction stays on schedule and should adopt key modifications to help advance important goals such as ensuring that each market can accommodate a full spectrum reserve, that smaller bidders are not disadvantaged in the assignment of specific frequencies, and that the maximum amount of spectrum is repurposed for its highest, most valuable use.

¹²² CTIA Comments at 16-18.

¹²³ *Auction Comment PN ¶¶ 69-70.*

¹²⁴ CCA Comments at 41.

Respectfully submitted,

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