

July 23, 2015

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions* (GN Docket No. 12-268); and related proceedings (ET Docket Nos. 13-26, 14-14, 14-165; MB Docket No. 03-185; GN Docket No. 14-166; AU Docket No. 14-252).

Dear Ms. Dortch,

On Tuesday, July 21, 2015, Meredith Attwell Baker, President and CEO, and Scott Bergmann, Vice President of Regulatory Affairs, of CTIA – The Wireless Association® (“CTIA”) met separately with Commissioner Jessica Rosenworcel, Commissioner Michael O’Rielly, and Commissioner Mignon Clyburn, as well as representatives from their offices and the Wireless Telecommunications Bureau, to discuss the above-referenced proceedings. In addition, on Wednesday, July 22, 2015, Thomas C. Power, Senior Vice President and General Counsel, and Mr. Bergmann met with Ruth Milkman, Chief of Staff, and Jessica Almond, Legal Advisor, Office of Chairman Tom Wheeler. A list of attendees and a copy of the presentation discussed are included as attachments to this *ex parte* filing.

Specifically, CTIA discussed the attached letter, filed on July 9, 2015, identifying eight targeted reforms that can have a material impact on the incentive auction’s success.¹ CTIA explained that for the wireless industry, the incentive auction represents an important opportunity to bid for access to much-needed spectrum for mobile broadband use. As the last scheduled traditional auction for licensed spectrum, CTIA stressed the need for the auction to be a success not only to meet consumer demand but also as a proof of concept for future auctions.

CTIA believes that with the right framework in place, a successful incentive auction will be a win-win-win for broadcasters, the wireless industry, and – most importantly – consumers. However, in order have a successful auction, wireless companies need certainty in the auction process in order to make billion-dollar investments in newly available 600 MHz band spectrum. As explained in the attached letter, to make those kinds of investments, forward auction bidders need protection from harmful interference, the ability to gain timely access to the spectrum they purchased, and the necessary information to make informed bidding decisions, all without being subject to unnecessarily burdensome regulations.

¹ See Letter from Meredith Attwell Baker, President & CEO, CTIA – The Wireless Association®, to Chairman Tom Wheeler and Commissioners Mignon Clyburn, Jessica Rosenworcel, Ajit Pai, and Michael O’Rielly, GN Docket No. 12-268, *et al.*, (filed July 9, 2015) (attached hereto).



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These three simple steps can be the key building blocks to a successful FCC auction – unlocking a new generation of mobile innovation and investment, helping meet our national licensed spectrum needs, and raising billions to reduce the deficit.

Pursuant to Section 1.1206 of the Commission’s rules, a copy of this letter is being filed in ECFS. Please do not hesitate to contact the undersigned with any questions.

Sincerely,

/s/ Scott K. Bergmann

Scott K. Bergmann
Vice President, Regulatory Affairs
CTIA – The Wireless Association®

Attachments

Attachment A

July 21, 2015 Meeting Participants

CTIA – The Wireless Association®

Meredith Attwell Baker, President & CEO, CTIA

Scott Bergmann, Vice President, Regulatory Affairs, CTIA

Federal Communications Commission – Office of Commissioner Rosenworcel

Commissioner Jessica Rosenworcel

Valery Galasso, Policy Advisor

Federal Communications Commission – Office of Commissioner O’Rielly

Commissioner Michael O’Rielly

Erin McGrath, Legal Advisor

Federal Communications Commission – Office of Commissioner Clyburn

Commissioner Mignon Clyburn

David Strickland, Interim Legal Advisor

Misha Guttentag, Law Clerk

Federal Communications Commission – Wireless Telecommunications Bureau

Johanna Thomas, Legal Advisor

July 22, 2015 Meeting Participants

CTIA – The Wireless Association®

Thomas C. Power, Senior Vice President and General Counsel, CTIA

Scott Bergmann, Vice President, Regulatory Affairs, CTIA

Federal Communications Commission – Office of Chairman Tom Wheeler

Ruth Milkman, Chief of Staff

Jessica Almond, Legal Advisor

Attachment B

July 9, 2015

VIA ELECTRONIC FILING

Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O’Rielly
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions* (GN Docket No. 12-268) and related proceedings (ET Docket Nos. 13-26, 14-14, 14-165; MB Docket No. 03-185; GN Docket No. 14-166; AU Docket No. 14-252).

Dear Chairman Wheeler and Commissioners,

CTIA – The Wireless Association® and its members have worked closely with the Commission to implement the 600 MHz incentive auction directed by the Middle Class Tax Relief and Job Creation Act of 2012 (“Spectrum Act”). We applaud your dedication to this critical effort and your commitment to hold the auction in a timely manner. To ensure that these efforts produce their intended results, we identify eight targeted reforms that can have a material impact on the auction’s success and appreciate your efforts to address each of these specific issues in your final reforms.

Importance of the Auction. For the wireless industry, the incentive auction represents an important opportunity to bid for access to much-needed spectrum for mobile broadband use. The spectrum repurposed through a successful incentive auction will help meet the expected six- to seven-fold increase in mobile data traffic within five years, as well as facilitate opportunities for innovative communications services, including mobile health, Internet of Things, education, and other mobile broadband-related initiatives. Using the FCC’s own formula, the FCC needs to re-allocate over 350 MHz in additional licensed spectrum by 2019.¹ The incentive auction represents the Commission’s best short-term opportunity to address this spectrum deficit and ensure the United States remains the global leader in wireless technologies as we continue to invest in the evolution of 4G while simultaneously commencing to develop the potential of 5G. As you know, licensed spectrum for commercial wireless networks already generates more than \$400 billion in annual economic activity nationwide.² A new infusion of spectrum can further foster job growth and spark entirely new industries: indeed, for every one person employed in the wireless industry today, an additional 6.5 jobs are created.³

¹ See Bazelon and McHenry, *Substantial Licensed Spectrum Deficit (2015-2019): Updating the FCC’s Mobile Data Demand Projections*, THE BRATTLE GROUP (June 23, 2015), at http://www.ctia.org/docs/default-source/default-document-library/bazelon_mchenry_spectrum-deficit_2015-06-23.pdf.

² See Bazelon and McHenry, *Mobile Broadband Spectrum: A Vital Resource for the American Economy*, THE BRATTLE GROUP (May 11, 2015), at http://www.ctia.org/docs/default-source/default-document-library/brattle_spectrum_051115.pdf.

³ *Id.* at 2.



Key Reforms. The Commission’s final auction procedures and rules can have a significant impact on wireless industry participation and the ultimate success of the auction. It is essential that the Commission adopt an auction framework – including auction procedures, rules to protect licensed services, rules to govern licensees’ access to newly-purchased spectrum, and protections for remaining broadcasters – that minimizes complexity and provides potential forward auction participants with the certainty needed to make the substantial capital investments that will be required for the auction to succeed.

Sufficient Interference Protection. The Commission’s regulatory framework needs to recognize the statutorily guaranteed rights of licensed services and protect them accordingly, which the current proposal fails to do. The success of the auction assumes carriers will bid billions of dollars, and that cannot happen absent clear and understood interference protection. The Commission’s rules should minimize impairment of licensed bands and protect licensed services from harmful interference as mandated in the Spectrum Act.

1. **Safeguard licensed operations from interference from unlicensed and wireless microphone use of the 600 MHz guard band and duplex gap.** We support unlicensed operations in the 600 MHz band duplex gap and guard bands as long as they create no interference challenges. Consistent with the real-world testing submitted by V-COMM, the Commission should adopt technical rules that both provide sufficient buffers and appropriate limits on harmful emissions from unlicensed operations into 600 MHz wireless licensed services.⁴
2. **Adopt a “stop buzzer” to prevent harmful interference.** This mechanism would require unlicensed white space devices and wireless microphones to cease transmissions immediately in the event that they cause harmful interference to licensed wireless services in the 600 MHz band consistent with the FCC’s approach in its *Experimental Radio Services* decision.⁵
3. **Strive to minimize impairments while maximizing the amount of spectrum recovered.** The FCC should produce near-nationwide band plans based on a sliding scale approach, which yields lower impairments and higher clearing targets, rather than adopt a rigid 20 percent threshold.⁶ Reducing the impairment threshold below the proposed 20 percent cap will maximize the availability of wireless licenses free from interference.⁷

Expedite Deployment and Reduce Uncertainty. The Commission’s framework for access to licensed spectrum and inter-service interference should speed broadband deployment and avoid unnecessarily

⁴ See, e.g., Comments of CTIA – The Wireless Association®, ET Docket No. 14-165, GN Docket Nos. 14-166 and 12-268 (filed Feb. 4, 2015); Reply Comments of CTIA – The Wireless Association®, ET Docket No. 14-165, GN Docket Nos. 14-166 and 12-268 (filed Feb. 25, 2015).

⁵ See *In the Matter of Promoting Expanded Opportunities for Radio Experimentation and Market Trials under Part 5 of the Commission’s Rules and Streamlining Other Related Rules et al.*, Report and Order, 28 FCC Rcd 758 (2013); see also Letter from Krista Witanowski, AVP, CTIA, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268 et al., at Attachment at 6 (filed July 1, 2015).

⁶ Comments of CTIA – The Wireless Association®, AU Docket No. 14-252, GN Docket No. 12-268, at 3-4 (filed Jun. 3, 2015) (“CTIA Auction Simulation PN Comments”).

⁷ Comments of CTIA – The Wireless Association®, AU Docket No. 14-252, GN Docket No. 12-268, at 2 (filed Feb. 20, 2015) (“CTIA Procedures PN Comments”).

burdensome mandates on 600 MHz licensees, particularly where those mandates could create auction-harming uncertainty about the value of wireless licenses. Several of the Commission's proposed rules would impose a disproportionate burden upon 600 MHz licensees that will erode bidder certainty about their primary status and impose unending obligations that will slow the buildout and upgrade of mobile broadband networks.

4. **Establish clear rights to spectrum acquired for billions at auction.** We urge the Commission to reject its proposal to allow secondary users to operate in auctioned bands contemporaneously with licensed operations. The Commission should define the term "commencement of operations" in a manner that enables licensees to conduct pre-deployment testing without encumbrances from secondary users and should not burden licensees with obligations to provide multiple, ongoing notifications to secondary users in order to access their own spectrum.⁸

5. **Streamline the inter-service interference prevention and resolution process.** The wireless industry is committed to the Commission's efforts to minimize interference between remaining broadcast stations and new 600 MHz wireless licensees. We believe that common objective can be best met without the need for repetitive inter-service interference analysis. For example, 600 MHz licensees should not be required to conduct extensive analyses of interference effects if proposed mobile network modifications would not increase the interference potential to a broadcast station. Similarly, the Commission should calculate any inter-service interference using a granular statistical measure and provide this information to bidders well in advance of the forward auction.⁹

Complete Bidder Information. It is critical that the Commission provide forward auction bidders with all of the information needed to make billion-dollar financial commitments. The Commission should provide forward auction bidders with access to comprehensive information well in advance of the auction as well as sufficient time to make educated and fully informed decisions between auction stages. Forward auction participants will bid in the forward auction for "generic" licenses, rather than specific licenses with well understood impairment and interference conditions. There remains concern that all licenses will not be truly fungible, as each block of spectrum in each individual market may have its own varying level of impairment. As a result, bidders need basic information about the impairments associated with particular spectrum blocks, including whether impairments will come from domestic television broadcasters, foreign television broadcasters, or unlicensed operations.

6. **Provide forward auction bidders with sufficient information.** The Commission should provide prospective wireless licensees with complete information regarding potential inter-service interference and license impairments, using the most granular data available.¹⁰ Specifically, the Commission should provide licensees

⁸ See, e.g., Comments of CTIA – The Wireless Association®, GN Docket No. 12-268 (filed May 1, 2015).

⁹ Opposition and Reply of CTIA – The Wireless Association® to Petitions for Reconsideration, GN Docket No. 12-268, ET Docket Nos. 13-26 and 14-14 (filed Feb. 26, 2015). The Commission should utilize the F(50,10) statistical measure to predict interference from broadcast stations to wireless operations, as it is a more accurate reflection of the real-world usability of a spectrum block and the costs associated with addressing impairments. At a minimum, the FCC should provide the information needed by forward auction bidders to determine the F(50,10) statistical measure.

¹⁰ CTIA Procedures PN Comments at 10-13; Reply Comments of CTIA – The Wireless Association®, GN Docket No. 12-268, AU Docket No. 14-252, at 12-13 (filed Mar. 13, 2015) ("CTIA Procedures PN Reply Comments"). In addition, we encourage the Commission to provide a sample data structure, data dictionary, and sample data for information

with station-by-station information regarding the level of access to spectrum and level of interference that prospective 600 MHz licensees can expect from domestic and international broadcast stations. This data should be provided sufficiently in advance of the forward auction and in a readily accessible format.

7. **Allow for 10 business days between reverse and forward auctions.**¹¹ The Commission's proposal to allow two days between the reverse and forward auction significantly underestimates the need of bidders for time to analyze potential impairments. The Commission should allow at least 10 business days between the release of the provisional 600 MHz band plan and granular data on impairments and the launch of the forward auction.¹² This brief extension of a few days will help contribute to a more successful auction.
8. **Provide new file formats and bidder packages and hold multiple mock auctions well in advance of the actual auction.** Given that the many new and complex aspects of this auction will require extensive time for bidders to prepare, the Commission should release the file formats for the files it will provide bidders during the auction well before applications are due. And it should release the bidder packages to qualified bidders and conduct multiple mock auctions well in advance of the actual incentive auction to ensure a smooth process and address issues that arise.¹³

These eight targeted reforms are essential to development of an incentive auction framework that will promote the continued innovation and investment in mobile broadband services; equitable, readily-administered coexistence in the 600 MHz band; and, ultimately, substantial public interest benefits.

Sincerely,



Meredith Attwell Baker
President and CEO
CTIA – The Wireless Association®

that will be provided to the forward auction participants. This will enable potential bidders to create computer systems that can accept and test these data files.

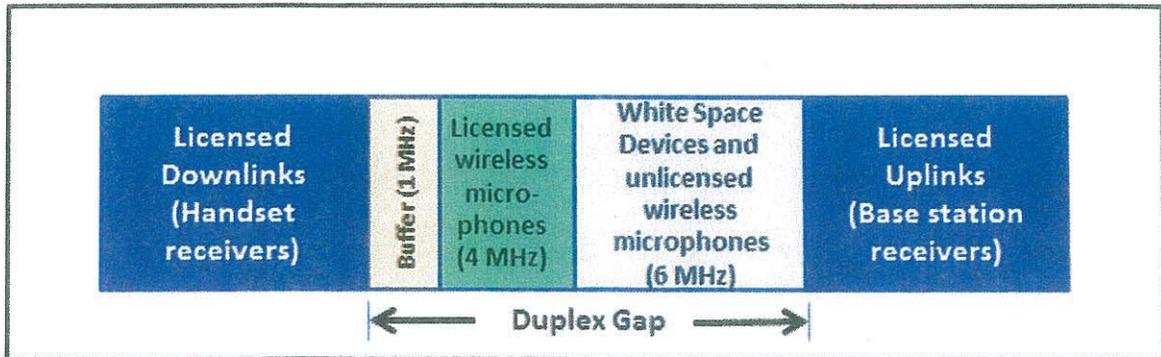
¹¹ CTIA Procedures PN Comments at 14-18; CTIA Procedures PN Reply Comments at 13-15.

¹² CTIA Procedures PN Comments at 15.

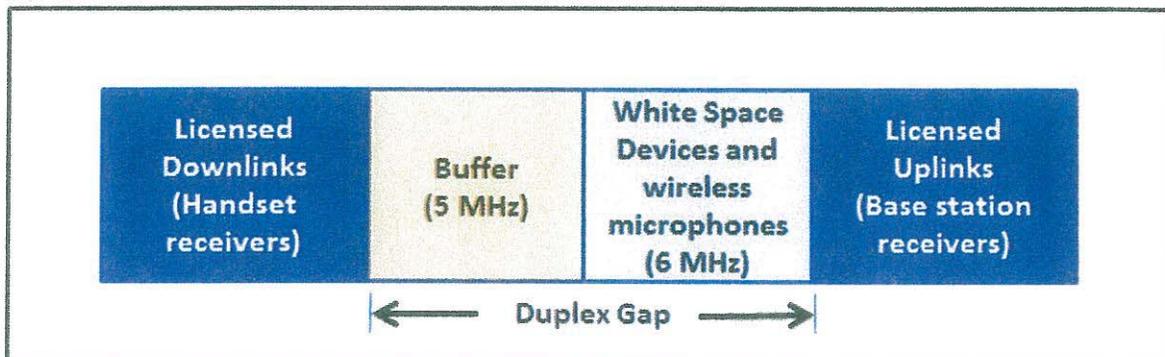
¹³ Specifically, CTIA asks the FCC to conduct an initial mock auction at least two months prior to the start of the incentive auction for parties who have submitted an application to participate in the auction. This will allow parties time to analyze all the data provided during the mock auction, ascertain if the current incentive auction software is functioning properly, allow for comments and changes to be provided and implemented, and schedule follow-up mock auctions well in advance of the actual auction.

Attachment C

FCC Duplex Gap Proposal



CTIA Duplex Gap Proposal



Note: Assumes White Space Devices and wireless microphones are subject to OOB limit of -89 dBm/100kHz.