

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

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 Economic and Innovation Opportunities of Spectrum Through Incentive Auctions)	GN Docket No. 12-268
)	
)	

COMMENTS OF CTIA – THE WIRELESS ASSOCIATION®

I. INTRODUCTION AND SUMMARY.

CTIA – The Wireless Association® (“CTIA”) respectfully submits these comments in response to the Commission’s *Auction Simulation Public Notice* regarding the results of several staff simulations of the initial clearing target optimization procedure proposed in the *Auction 1000 Public Notice*.¹ CTIA fully supports the Commission’s efforts to provide additional data to potential auction participants on the selection of an initial spectrum clearing target. The incentive auction is a complex endeavor that will benefit from full disclosure by the Commission of as much data and information as possible to ensure that all affected parties understand precisely what will be made available in the forward auction. CTIA believes that the simulation information provided as part of the *Auction Simulation Public Notice* is an excellent first step in allowing interested stakeholders the opportunity to better understand the amount of impairments

¹ *Incentive Auction Task Force Releases Initial Clearing Target Optimization Simulations*, Public Notice, DA 15-606, AU Docket No. 14-252, GN Docket No. 12-268 (rel. May 20, 2015) (“*Auction Simulation Public Notice*”); *Comment Sought on Competitive Bidding Procedures for Broadcast Incentive Auction 1000, Including Auctions 1001 and 1002*, Public Notice, 29 FCC Rcd 15750 (2014) (“*Auction 1000 Public Notice*”).

that may be expected on 600 MHz licenses. To further enhance transparency associated with the forward auction, CTIA recommends that the Commission:

- **Continue to investigate alternatives to the “20 percent impairment” proposal originally included in the *Auction 1000 Public Notice*.** The *Auction Simulation Public Notice* apparently signals movement from the Commission to potentially reduce or eliminate the national 20 percent impairment threshold – a result that CTIA and its members strongly support;
- **Take further action with respect to impairments expected from Mexican broadcast television stations.** First, the Commission should provide auction simulations based on the best available data on Mexican impairments. Second, the Commission should work with Mexico to obtain more accurate information on the protected broadcast television stations in an expeditious fashion. Confirmed and updated Mexican television impairment data will be useful to potential auction participants making decisions about spectrum assets; and
- **Provide more details behind the assumptions that were made in creating the auction simulations.** Without greater disclosure of the methodology and criteria used, potential auction participants are unable to understand how the FCC is determining impairments on licenses and what the appropriate threshold for impairments should be for 600 MHz licenses. The FCC should also provide all simulation data, rather than a snapshot, to allow parties the ability to analyze the outcome and methodology used by the Commission.

By taking these recommended actions, the Commission will provide interested parties the information and data needed for informed decision-making during the auction.

II. THE RELEASE OF AUCTION SIMULATIONS BY THE COMMISSION IS A POSITIVE FIRST STEP TOWARD DISCLOSING THE EFFECTS OF IMPAIRMENTS.

CTIA has consistently urged the Commission to provide potential forward auction participants with information needed to make bidding decisions.² The auction simulation results contained in the *Auction Simulation Public Notice* are a positive first step toward more

² See Comments of CTIA, AU Docket No. 14-252, GN Docket No. 12-268, at 10-12 (filed Feb. 20, 2015) (“CTIA Auction 1000 Public Notice Comments”); Reply Comments of CTIA, AU Docket No. 14-252, GN Docket No. 12-268, at 12-13 (filed Mar. 13, 2015) (“CTIA Auction 1000 Public Notice Reply Comments”).

transparency and understanding of the potential for impairments in the licensed 600 MHz spectrum. CTIA strongly supports continued disclosure of auction simulation data to potential bidders and believes that this effort should continue during the process leading up to the actual incentive auction. However, as detailed below, the information provided still requires additional clarification to allow for a complete understanding of the assumptions used by the Commission to determine impairments.

III. CTIA SUPPORTS REDUCING THE PROPOSED 20 PERCENT NATIONAL IMPAIRMENT THRESHOLD.

In the *Auction 1000 Public Notice*, the FCC proposed to set the near-nationwide standard for impairments at less than 20 percent.³ CTIA in its comments urged the Commission to consider alternatives to this proposed threshold to better ensure a near-nationwide band plan for the 600 MHz band.⁴ CTIA noted that while a certain degree of impairment to 600 MHz licenses is inevitable, if the 20 percent threshold would permit a significant amount of impairment and result in what no reasonable person could describe as a “near-nationwide” band plan, then this standard should be revisited.⁵

The *Auction Simulation Public Notice* appears to have taken a positive step by moving away from the proposed 20 percent near-nationwide threshold and instead developing simulation results based on an impairment standard of up to (but not equal to) the equivalent of one license block nationwide as measured by weighted population.⁶ This new metric led to the following outcomes for impairments:

³ *Auction 1000 Public Notice* ¶ 39.

⁴ CTIA Auction 1000 Public Notice Comments at 9.

⁵ *Id.*

⁶ *Auction Simulation Public Notice* ¶ 2.

- 14 percent nationwide impairment threshold for the 84 MHz clearing target;
- 11 percent nationwide impairment threshold for the 114 MHz clearing target; and
- 10 percent nationwide impairment threshold for the 126 MHz clearing target.⁷

CTIA further notes that these thresholds increase as the clearing target decreases. For example, a clearing target of 84 MHz would result in 7 paired licenses and therefore the impairment threshold would be 1/7 (or 14 percent). If the clearing target is 78 MHz, the result would be 6 paired licenses and the impairment threshold would be 1/6 (or 16.7 percent). As such, CTIA and its members continue to have concerns that the methodology utilized in the auction simulations may still not be appropriate for determining impairments in the 600 MHz spectrum band.

Instead, CTIA believes that the Commission should continue to explore the implications of alternative impairment thresholds. CTIA and its members are also working to examine this issue, and CTIA is not endorsing a particular alternative standard at this time. CTIA does not, however, believe the 20 percent impairment threshold originally proposed would provide a near-nationwide band plan for the 600 MHz spectrum. CTIA encourages the Commission to continue to provide additional simulation data for affected parties to help determine the appropriate methodology to measure impairments affecting the 600 MHz band.

IV. IMPAIRMENTS FROM MEXICAN BROADCAST TELEVISION STATIONS SHOULD BE DISCLOSED AND TECHNICAL DATA UPDATED.

The FCC states in the *Auction Simulation Public Notice* that the simulations do not reflect any interference from Mexican TV stations into the United States and asserts that this data will be made available in advance of the incentive auction.⁸ CTIA notes that the Commission has been provided Mexican TV station data – indeed, AT&T has provided extensive analysis of the

⁷ *Id.* at Appendix at 1.

⁸ *Id.* ¶ 3; *id.* at n. 10.

existing Mexican impairments to the Commission.⁹ CTIA strongly urges the Commission to provide its own simulation data, based on the existing Mexican television data, to enable prospective bidders to understand how impairments are to be calculated.

It is critically important that the Mexican television impairment data be confirmed and updated expeditiously. Potential auction participants need this information well in advance of the incentive auction to understand the impairments expected from Mexican television broadcast stations. As AT&T pointed out in its *ex parte*, impairments from Mexican television stations are important to quantify the impact on 600 MHz licenses in Partial Economic Areas near the Mexican border.¹⁰

Moreover, it would benefit affected parties if the Commission provided its thoughts on the AT&T analysis of impairments as well. The Commission could help parties understand what modifications or differences that the FCC's methodology may have with respect to the AT&T analysis. Doing so would increase the transparency of the Commission's decision-making process and therefore increase the knowledge base of potential bidders. CTIA urges the Commission to move ahead with these actions as soon as possible.

V. THE COMMISSION SHOULD PROVIDE ADDITIONAL CLARIFICATION ON ITS SIMULATION PROCESSES.

While the provision of auction simulations is a helpful start, CTIA believes that the Commission should disclose more information about the results. Clarification of the assumptions and criteria used by the FCC to develop the auction simulations will enable potential bidders to better understand the amount of impairments to be expected in the 600 MHz

⁹ See *Ex Parte* Letter from Michael Goggin, AT&T, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 12-268 (filed Apr. 14, 2015) (“AT&T *Ex Parte*”).

¹⁰ *Id.* at 1.

band. Additionally, CTIA strongly encourages the Commission to release all the raw data associated with the auction simulations, rather than just the snapshot that has been provided to date. Release of all auction simulation data will allow interested parties the opportunity to fully analyze all the decisions and outcomes associated with impairments.

The Rationale for Use of One License Block Measured by Weighted Population Should Be Provided. The Commission should clarify why the simulations used one license block nationwide as measured by weighted population (“weighted-pops”) as the threshold.¹¹ The FCC in footnote 4 attempts to disclose the process used for this metric, but there is no discussion as to why this weighted-pops threshold should be the relevant factor for nationwide impairments.¹² Additionally, the FCC has not addressed other proposals in the record for measuring impairments or provided any auction simulation data for those proposals.¹³ Greater information and clarity about these significant details would be valuable to interested parties to gain insights into the best approach for minimizing impairments to the 600 MHz spectrum.

Assumptions About Broadcaster Participation Should Be Provided. The auction simulations do not provide any information on the FCC’s underlying assumptions about broadcaster participation. To run the simulations, certain assumptions had to be made to determine which broadcast stations would have accepted an FCC offer and which stations would remain to be repacked under each clearing target. These assumptions have not been detailed. In addition, the FCC does not disclose if these were single simulations or if multiple simulations were run at each broadcaster participation scenario. For example, for a range of 40 to 50 percent,

¹¹ *Id.* ¶ 2.

¹² *Id.* at n.4.

¹³ *See e.g., AT&T Ex Parte.*

the FCC could have run simulations at 40 percent participation, 41 percent participation, 42 percent participation, etc.). We encourage the FCC to release these assumptions so interested parties will be able to better understand and assess the decisions made by the FCC to predict broadcaster participation.

Data and Rationale Behind Treatment of Downlink and Uplink Impairments Should Be Clarified. In the *Auction 1000 Public Notice*, the FCC proposed to distinguish between uplink and downlink impairments.¹⁴ In particular, the FCC proposed to consider a county with uplink impairments above the threshold to be only 50 percent impaired.¹⁵ In the auction simulations, however, the FCC appears to have changed this approach, no longer distinguishing between impairments to uplink and downlink bands. It would be beneficial to have simulation results for both approaches, as well as a discussion of the merits of each approach. If the Commission does not provide simulation results of its original proposal as well as its current approach, prospective bidders will not be able to judge which method will minimize the impairments to the 600 MHz band.

Inter-Service Interference (“ISIX”) Contour Assumptions Should Be Disclosed. CTIA has asked the FCC to make clear what parameters it is utilizing for the ISIX methodology.¹⁶ In particular, CTIA has sought data based on F(50,10) and F(50,50) contour calculations.¹⁷ However, the auction simulations do not provide any information on what contours have been used to calculate impairments. CTIA asks that this information be disclosed and, if F(50,50)

¹⁴ *Auction 1000 Public Notice* ¶ 29.

¹⁵ *Id.*

¹⁶ CTIA Auction 1000 Public Notice Comments at 10-12.

¹⁷ *Id.*

contours were used, that the simulation data using F(50,10) contours also be made available. This information will give bidders a more complete picture of the potential interference environment in markets where they plan to bid on 600 MHz licenses.

The FCC Should Clarify If Non-Continental United States Impairments Were Considered. The Commission should clarify whether it simulated any impairment outside of the continental United States. Footnote 14 notes that the total number of licenses analyzed at each clearing target level includes only those licenses that could be offered in the continental United States.¹⁸ This point should be clarified to better inform interested parties about how the simulations were run and what to expect in the auction itself with respect to impairments in Alaska, Hawaii and other markets outside the continental United States.

The Commission Should Provide All Raw Data From Auction Simulations. The FCC only provides minimal results from the simulations in the Appendix. CTIA believes that the FCC should provide a full set of raw data from the simulations so that parties can analyze it. The FCC has done so in past actions, such as when it released the underlying data used in its TV station interference simulations based on new *TVStudy* software.¹⁹ Similarly, the Commission released the preliminary constraint files representing the results of staff analysis of whether a television station could be assigned to particular channels in the incentive auction repacking process.²⁰ This provision of additional information and clarity will make it possible for

¹⁸ *Auction Simulation Public Notice* at n.14.

¹⁹ See FCC, Aggregate Interference Simulations, available at http://data.fcc.gov/download/incentive-auctions/Simulation_Results/ (last visited May 28, 2015).

²⁰ See FCC, Constraint Files for Repacking, available at http://data.fcc.gov/download/incentive-auctions/Constraint_Files/ (last visited May 28, 2015).

interested parties to provide meaningful feedback on the simulations and the Commission's proposals for the upcoming auction.

VI. CONCLUSION

CTIA and its members support the Commission's efforts to provide transparency regarding the effects of impairments. Providing additional information to interested parties will give such parties the knowledge they need to make informed decisions regarding spectrum assets and increase the likelihood of a successful auction. By minimizing impairments and giving bidders in the forward auction accurate information, the Commission can better achieve the Congressional goal of repurposing much-needed spectrum for mobile broadband use.

Accordingly, CTIA and its members urge the Commission to provide additional information regarding its simulation processes and ensure that interested parties – including prospective forward auction bidders – clearly understand the auction proposals and impacts.

Respectfully submitted,

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Dated: June 3, 2015