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April 24, 2015

Ex Parte

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

Re: Auction of Advanced Wireless Services Licenses Scheduled for November 13, 2014, Comment Sought on Competitive Bidding Procedures for Auction 97, AU Docket No. 14-78; Updating Part 1 Competitive Bidding Rules, WT Docket No. 14-170

Dear Ms. Dortch:

On April 22, 2015, Dr. Leslie Marx, Professor of Economics at the Fuqua School of Business at Duke University,[1] and Kathleen Grillo, Robert Griffen, Leora Hochstein, and John Scott of Verizon met with Roger Sherman, Chief of the Wireless Telecommunications Bureau, and the following Bureau staff: Craig Bomberger, Jean Kiddoo, Eliot Maenner, Sue McNeil, Paroma Sanyal, Martha Stancill, Johanna Thomas and Margaret Wiener. Dr. Marx and the Verizon representatives also had separate meetings that day with Commissioner Ajit Pai and Brendan Carr, Legal Advisor, and with Commissioner Michael O'Reilly and Erin McGrath, Legal Advisor.

At each of the meetings Dr. Marx presented her economic analysis of the bidding by DISH and two designated entities, Northstar Wireless and SNR Wireless, during the AWS-3 auction. Dr. Marx based her analysis on the Commission's round-by-round auction results. A copy of her presentation is attached.

Dr. Marx concluded that the auction data reveal extensive evidence of collusion by DISH, Northstar and SNR, which violates antitrust law and the Commission's rules and policies. She specifically discussed the following examples of collusion, each of which is documented by the data:

- Suppression of rivalry. DISH and the DEs frequently bid on the same licenses in the same rounds while other bidders were active, which created the false perception that multiple other

[1] Dr. Marx is also a partner at Bates White Economics Consulting. She served as the Commission's Chief Economist from August 2005 through August 2006. She is an expert in auctions and antitrust liability, and has published numerous papers on auctions and collusion.

parties were interested in those licenses (though did so generally without bidding each other up). After competing bidders dropped out, DISH and the DEs avoided bidding against one another. This conduct is indicative of a bidding ring, intended to drive out competitors and then suppress rivalry among the ring members.

- Distortion of information available to other bidders. As noted above, by placing double and triple bids, DISH and the DEs sent the false signal to other bidders of more robust demand, which may have deterred other bidders or caused them to drop out of the auction. Northstar and SNR also placed double bids on 80 licenses that had been inactive for at least 51 rounds, some for more than 200 rounds. These joint bids on inactive licenses raised the costs to the longstanding high bidder to remain in the auction and may have deterred bidders from continuing to participate.

- Allocation of markets. Northstar and SNR allocated certain markets between them, while still ensuring that their combined holdings covered all of the population nationwide. This result is virtually impossible to explain in the absence of coordination and collusion.

- Acceptance of random assignments. For 27 percent of the licenses they won at auction (190 licenses), Northstar and SNR "accepted" the FCC's random assignment of one of them as the randomly picked provisionally winner after they each bid the same amount, rather than compete against one another for the licenses. This occurred only five other times in the AWS-3 auction for all other bidders. This behavior suggests that the DEs anticipated that they would coordinate and allocate licenses between them post-auction.

- DISH's handoff of licenses to its DEs. The auction data show that DISH colluded with the DEs to exit the auction early, without risk and without penalty. It did this by ensuring that, when DISH exited the auction following round 20 when it was the high bidder on several hundred licenses, the DEs topped its previous high bids on virtually all those licenses. Dr. Marx explained that when DISH suddenly exited the auction in rounds 20-22, the DEs replaced DISH on 91% of the licenses in these rounds which DISH had provisionally won. Dr. Marx also noted that by handing off licenses to the DEs, DISH avoided the risk of having to pay for any of them – and the DEs became high bidders at a 25 percent lower price.

  The evidence relating to the way DISH engineered its exit from Auction 97, apart from providing additional evidence of collusive bidding, also strongly suggests that the DEs were not acting independently during the auction as required by the Commission's DE rules. To the contrary, the evidence indicates that DISH was directing the DEs' activities, which it cannot do under those rules.[2]

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[2] *See, e.g.,* Section 1.2110 (requirements for auction applicant to be eligible as a designated entity); *Baker Creek Communications, L.P,* 13 FCC Rcd 18709 (WTB 1998) (auction winner disqualified as a designated entity because *de facto* control was exercised by an investor that did not qualify as a small business); *Amendment of Part 1 of the Commission's Rules – Competitive Bidding Procedures,* 15 FCC Rcd 15293, 15324 (2000) (incorporating *de facto* control principles into designated entity rules).

The FCC also has made it clear in its auction orders that collusive bidding during an auction is expressly prohibited and subject to sanctions by the FCC. It has repeatedly identified what conduct is prohibited and subject to sanction:

> Of course, applicants will also be subject to existing antitrust laws. For example, we would expect that this would prohibit discussions with respect to bid prices between any applicants who have applied for licenses in the same geographic market. … In addition, agreements between two or more actual or potential competitors to submit collusive, non-competitive or rigged bids are *per se* violations of Section One of the Sharman Antitrust Act. … Similarly, agreements between actual or potential competitors to divide or allocate territories horizontally in order to minimize competition are per se violations of the Sherman Act … and such agreements are anticompetitive regardless of whether the parties split a market in which they both do business or whether they merely reserve one market for one and another for the other.[3]

The Commission also has reminded bidders in the context of individual auctions, including Auction 97, of what is prohibited.[4] The evidence Dr. Marx presented indicates that DISH and the DEs engaged in precisely this behavior during the auction – they discussed bid prices, submitted collusive bids, and allocated markets.

We also emphasized that although the FCC allows bidding consortia to participate in auctions if their existence is disclosed in advance, it has never said that those arrangements somehow justify collusive conduct in an auction. As discussed above, the FCC has repeatedly emphasized that antitrust rules continue to apply. In fact, the Commission has been specific that "compliance with the disclosure requirements of section 1.2105(c) will not insulate a party from enforcement of the antitrust laws."[5] The FCC's disclosure rule merely describes what types of agreements bidders must report in advance. The rule does not speak to whether those agreements themselves are lawful or whether actions the bidders take after the disclosures are made and during the auction are legal. The purpose of the disclosure rule was in fact to "facilitate the identification and investigation of any suspect bidding behavior."[6]

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[3] *See, e.g., Implementation of Section 309(j) of the Communications Act – Competitive Bidding, Fourth Memorandum Opinion and Order,* 9 FCC Rcd 6858, 6869 at ¶ 59 n. 154 (1994) (citations omitted).

[4] Public Notice, *Auction of Advanced Wireless Services (AWS-3) Licenses Scheduled for November 13, 2014,* DA 14-1409 (2014) at ¶ 35 *("AWS-3 Public Notice")* ("Regardless of compliance with the Commission's rules, applicants remain subject to the antitrust laws, which are designed to prevent anticompetitive behavior in the marketplace.").

[5] *AWS-3 Public Notice* at ¶ 35.

[6] *Implementation of Section 309(j) of the Communications Act – Competitive Bidding, Second Report and Order,* 9 FCC Rcd 2348, 2387 at ¶ 225 (1994).

In short, the evidence of bidding activity presented by Dr. Marx is consistent with the conclusion that DISH, Northstar and SNR engaged in collusive bidding.

Sincerely,

Kathleen Grillo

Attachment

cc: Commissioner Ajit Pai
Commissioner Michael O'Reilly
Brendan Carr
Erin McGrath
Roger Sherman
Craig Bomberger
Jean Kiddoo
Eliot Maenne
Sue McNeil
Paroma Sanyal
Martha Stancill
Johanna Thomas
Margaret Wiener

BATES WHITE
ECONOMIC CONSULTING

Economic analysis of coordinated bidding in FCC Auction 97

Presented by
Leslie M. Marx

Agenda

- Overview of AWS-3 auction
- Collusive behavior is unlawful
- Collusion by Dish and its Designated Entities (Northstar and SNR)

FCC auction mechanics

- Framework
  - Simultaneous multiple round auction
  - Activity requirements in order to maintain eligibility to bid
  - Anonymous bidding (bidders do not know identities of other bidders)
  - FCC-set incremental bid amounts based on level of activity
  - Use of random number tie breakers when bidders submit same bids

- Results
  - November 13, 2014 – January 29, 2015
  - 66 bidders: 31 bidders won 1611 licenses
  - Gross bids: $44,899,451,600
  - Net bids: $41,329,673,325 (applying DE discounts)
  - Dish DEs won more licenses than anyone (702), and received 93% of the total DE discounts ($3.331B out of $3.569B)

Collusive behavior is unlawful

- The FCC notified parties in the July 2014 AWS-3 public notice that engaging in coordinated bidding could lead to sanctions:

  "Regardless of compliance with the Commission's rules, **applicants remain subject to the antitrust laws,** which are designed to prevent anticompetitive behavior in the marketplace. **Compliance with the disclosure requirements of section 1.2105(c) will not insulate a party from enforcement of the antitrust laws….** The Commission has cited a number of examples of potentially anticompetitive actions that would be prohibited under antitrust laws: for example, actual or potential competitors may not agree to divide territories in order to minimize competition.… 'Even where the applicant discloses parties with whom it has reached an agreement on the short-form application, thereby permitting discussions with those parties, the applicant is nevertheless subject to existing antitrust laws.'" (*Auction 97 Procedures PN* at para. 35 and citing *Anti-Collusion Public Notice,* 11 FCC Rcd at 9646).

Collusive bidding is unlawful

- In 1994, the FCC made clear that discussions with respect to bid prices are prohibited among applicants that apply for licenses in the same markets:

  "Of course, applicants will also be subject to existing antitrust laws. For example, we would expect that this would prohibit discussions with respect to bid prices between any applicants who have applied for licenses in the same geographic market…. In addition, agreements between two or more actual or potential competitors to submit collusive, non-competitive or rigged bids are per se violations of Section One of the Sherman Antitrust Act…. Similarly, agreements between actual or potential competitors to divide or allocate territories horizontally in order to minimize competition are per se violations of the Sherman Act … and such agreements are anticompetitive regardless of whether the parties split a market in which they both do business or whether they merely reserve one market for one and another for the other." *Competitive Bidding, Fourth Memorandum Opinion and Order,* 9 FCC Rcd 6858 at para. 59 n. 134.

Auction 97 data reveal evidence of collusion

- Suppression of rivalry
  - Dish and the DEs suppressed competition with one another once other bidders exited
- Distortion of information available to other bidders
  - Multiple bids sent false signals to other bidders of high demand on targeted licenses, which can deter others from bidding on those licenses and cause them to substitute towards other licenses
- Anticipation of post-auction coordination and/or reallocation
  - Division and allocation of markets
  - “Acceptance” of random assignment for some licenses
- Communication and coordination
  - Handoff from Dish to DEs
  - Joint bids on “inactive” licenses

Evidence of suppression of rivalry by Dish, Northstar, and SNR

- Dish, Northstar, and SNR bid extensively and often on the same licenses when other bidders were active

- In the absence of competition from other bidders, Dish, Northstar, and SNR largely avoided bidding against one another. When other bidders dropped out, Dish and its DEs stopped bidding as well

  - Dish DEs only engaged in paired bidding against each other in closing rounds on 19 licenses, compared to 744 licenses when bidding against others

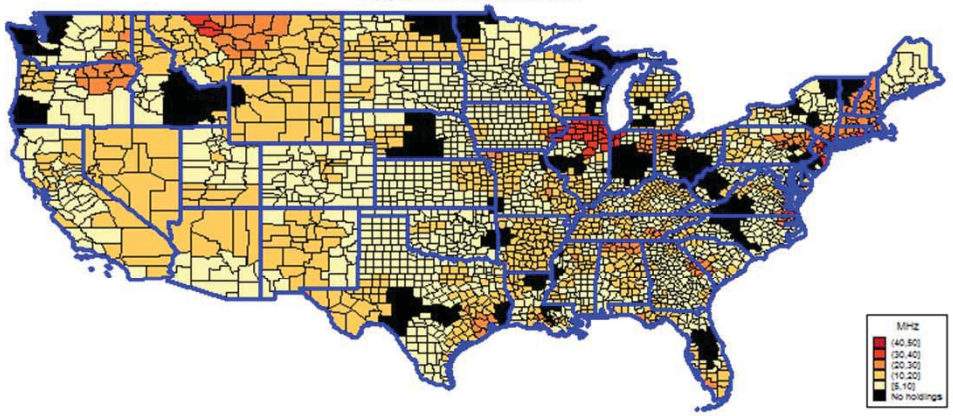
  - Dish DEs only bid each other up by $11,500 in head-to-head competition in the final rounds of bidding, compared to hundreds of millions of dollars when bidding against others

Multiple bids distorted price discovery

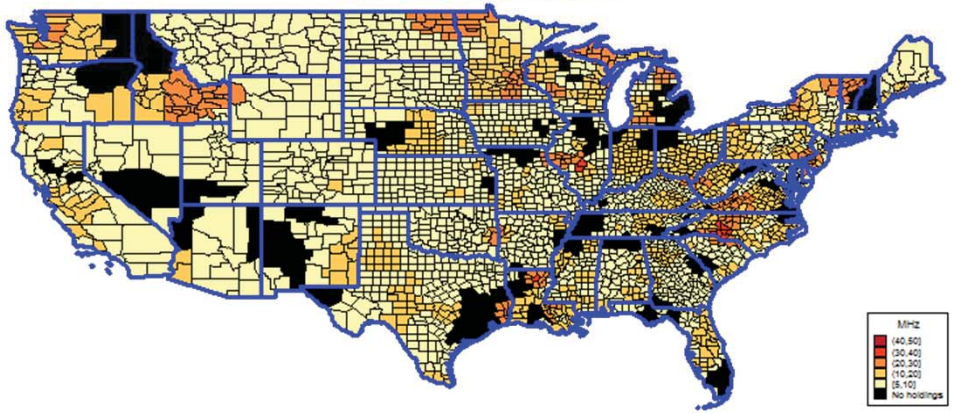
- With anonymous bidding, the FCC does not disclose who places bids during the auction
- Multiple identical bids by Dish and its DEs sent the false signal to other bidders of more robust bidding competition for certain licenses
- This interference with the usual auction price discovery process may have caused bidders to bid on licenses they valued less, producing an economically sub-optimal result
- Some small bidders say they were deterred from continuing to participate and dropped out

Evidence shows a division of markets between Northstar and SNR

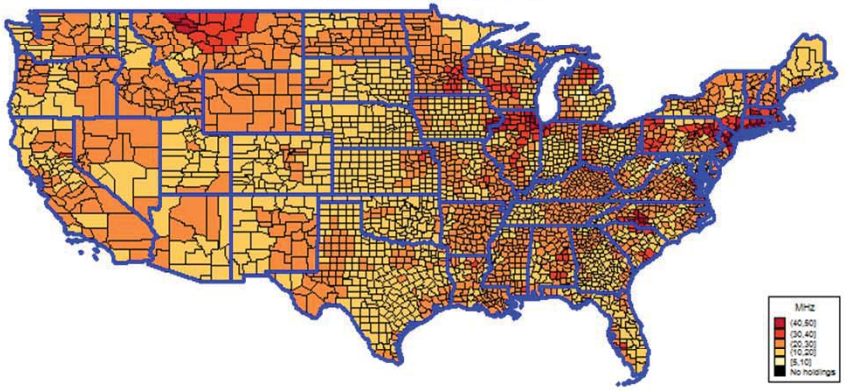
Northstar Wireless, LLC



SNR Wireless LicenseCo, LLC



Combined Northstar and SNR



Source: BW calculations based on FCC data.

For roughly 200 of the 734 CMAs covering the United States, Northstar and SNR divided the market, with one and only one of the firms purchasing spectrum for the CMA.

Coordination is evident through the acceptance of random license awards

- In the event of tied bids, the FCC uses a random number assignment process to select a winner
- A willingness by ring bidders to repeatedly accept a random number assignment between ring members suggests anticipation of post-auction coordination and/or reallocation
  - For more than 25% of licenses that Northstar and SNR won, they “accepted” the FCC’s random allocation of the license between them: 190 licenses, compared with 5 cases for all other bidders
  - Net incremental auction revenues of $632,161,500 if DEs had outbid one another just once on each the 190 licenses

Evidence of collusion in Dish's handoff to its DEs

- In the early rounds, Dish was an active bidder
  - Dish was the provisional winning bidder (pwb) on as many as 351 licenses in a given round
- Dish reduced the number of new bids it submitted in round 21 and then stopped bidding (except for one new bid in round 24)
- The DEs quickly relieved Dish of being the pwb:
  - They replaced Dish on 91% of licenses for which Dish lost its status as pwb in rounds 20-22
  - In round 21, Dish lost 92% of the licenses on which it was the pwb in the previous round, and in round 22 it lost 100% of the licenses on which it was pwb in the previous round
  - In contrast, typical rates of loss in that round were around 50%
- Handing off pwbs to its DEs allowed Dish to avoid the risk of winning the licenses at full price, while still preserving its eligibility in the early rounds, giving it advantages over competing bidders
- This behavior enabled Dish to deliver the licenses to its DEs who then would receive a 25% discount

Evidence of collusion from “double” bids on “inactive” licenses

- We identified 80 licenses meeting the following criteria:
  - No bids for at least 51 rounds, then
  - Simultaneously, both Dish DEs bid the same amount in the same round
- 17 of these occurrences happened after 201+ rounds with no bids
- There were zero simultaneous bids by other bidders on licenses that had no bids for more than 52 rounds
- Joint bids after inactivity cause the minimum acceptable bid to increase by more than it would following a single bid, which increases the cost to the previous pwb to continue bidding
- The Dish DEs’ coordinated behavior may have driven other bidders out of the auction, by forcing them to increase their bid more than would have been required absent coordinated behavior

Appendix – Definitions

The “final round of bidding” on a license is the highest round in which a new bid was submitted for that license.

“Paired bidding” occurs when only two companies comprise the provisionally winning bidder (“pwb”) in the third-to-final round and all bidders in the second-to-final and final rounds.

“Head-to-head competition” occurs when there are consecutive rounds of bidding culminating in the final round of bidding during which only two bidders are active in the sense of submitting a new bid or being the pwb from the prior round.

A “random license award” occurs when more than one bid is submitted in the final round of bidding on a license (in this case, the FCC’s randomization process selects the winner).