

Reply to Comments on DA 12-121

MOBILITY FUND PHASE I AUCTION SCHEDULED FOR SEPTEMBER 27, 2012

COMMENT SOUGHT ON COMPETITIVE BIDDING PROCEDURES FOR AUCTION 901 AND CERTAIN PROGRAM REQUIREMENTS

AU Docket No. 12-25

by

Aleksandar Saša Pekeč

Decision Sciences
Duke University, The Fuqua School of Business
Durham, NC 27708-0120
pekec@duke.edu

Decisions that precede and impact the design of competitive bidding procedures.

One of the prevailing themes among the comments filed is that further clarity and possible improvement is needed in (a) defining basic biddable items, and (b) defining an underlying measure for the biddable items and collections of biddable items. Furthermore, related to (b), there is a need for a properly defined objective that would ultimately determine auction winners. The discussion of auction procedures can be meaningful only after the Commission makes the final ruling on these issues.

Competitive bidding procedures.

Assuming no fundamental changes from those laid out in the Public Notice, the Commission might still benefit from a clear recommendation regarding three options proposed: Bidder-Defined Aggregations (Paragraphs 31-37), Predefined Aggregations (Paragraphs 38-45), or Other Aggregation Options (Paragraph 46). If, realistically, only minor modifications of proposed procedures are possible, the Commission should pursue the Predefined Aggregations option.

Bidder-Defined Aggregations. Given a large number of biddable units, any combinatorial bidding procedure will require the Commission to make difficult choices. In particular, it will be impossible to simultaneously provide sufficient flexibility for bidders to express their valuations, and to ensure that the

winner determination problem is provably solvable in a reasonable amount of time. Thus, the Commission could either try to (a) limit the structure of biddable packages or severely limit the number of package bids submitted, or (b) risk computational feasibility and practical implementability of the auction procedure. Several comments alluded to that problem. For example, AT&T in its comments pointed out that the difficulty of expressing valuations in a typical CMA where there could be more than 800 biddable items. If bidders are limited to only three package bids, the winner determination is not going to be problematic, but it will be impossible for bidders to express their values. On the other hand, even if bidders want to express simple valuations structures, such as willingness to win at least a certain percentage of all biddable items (eligible census blocks) in a CMA, they would need the ability to submit unmanageable number of package bids that would make the winner determination problem insurmountable. (The Commission could reflect back to discussions about winner determination and related optimization problems surrounding Auction 31. There were only 12 items there.)

Furthermore, as some commenters noted (e.g., AT&T), there are serious issues and implications regarding possible overlap of package bids. Even setting the issue of bidder behavior when facing potential overlap aside, allowing overlaps does not really simplify the complexity of the winner determination problem, as long as the overlap needs to be capped or minimized according to some measure.

Predetermined Aggregations. This approach is along the lines of the idea of limiting the structure of biddable packages. If bidding in this format allows bidders to express their valuations (and it seems that commenters were content with this, since there were no significant objections raised), the Commission should pursue this approach. Implementability of the auction procedure, unlike the other two options the Commission is considering, is guaranteed. This approach has several other desirable features, such as simplicity (which is very important, e.g., reply comment by David McAdams forcefully argues this point), and amenability to introduce improvements. For example, several comments point out that a multiple round procedure would be desirable (e.g., comment by Belloni et al. and a reply comment by Power Auctions LLC). If the Commission would have an interest to allow for multiple-round procedures (which are standard in corporate procurement auctions), this can be easily implemented, as described in the comment by Belloni et al.

Other Aggregation Options. The proposal described in Paragraph 46 of the Public Notice lacks important details and, given two-dimensional structure of bids that need to be submitted, could cause serious implementation problems, despite many potentially desirable theoretical properties.

In summary, if the Commission cannot rethink basic definitions of biddable items and the overall objective, and if one of the three options has to be picked, the best way for the Commission to proceed is to stay within the Predetermined Aggregations model and to make several improvements laid out in comments, such as those by AT&T and Belloni et al.

*Durham, NC
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