

Reply Comment on Competitive Bidding Procedures for Auction 901

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1 Introduction

This reply comment is in response to comments filed in response to FCC Public Notice DA 12-121 regarding the Mobility Fund Phase I Auction Scheduled for September 27, 2012.

2 Simplicity of the auction format

The FCC's public notice seems to suggest that bidders would be expected to bid according to their costs of providing service (see, e.g., para. 26). This is echoed in some of the examples provided in comments filed (e.g., the comments of AT&T). We would like to provide an example to clarify that in the FCC's proposed format, it is not going to be optimal for bidders to submit bids equal to their costs, or even their costs plus some standard markup.

For example, suppose that there are bidders with costs 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 dollars per mile. To keep things simple, suppose that each bidder is interested in a different tract and that each tract has 1 mile. Suppose that the budget

is 45. That means that the efficient outcome is for the government to finance the six bidders with costs 5, 6, 7, 8, 9, and 10 because $5 + 6 + 7 + 8 + 9 + 10 = 45$.

Consider sealed bidding. If each bidder submitted a bid equal to its cost, then the bidder with cost 5 could profitably deviate by bidding 9 instead of 5. It would still be among the winners ($6 + 7 + 8 + 9 + 9 < 45$) and would have greater profit. In fact, the equilibrium is for the five bidders with the lowest costs to all bid 9. Bidders with relatively low costs shade up their bids substantially. The bidder with cost 10 is not financed, even though it would be financed in the efficient outcome.

The same outcome would prevail in a descending-bid auction. The difference is that the bid preparation costs would presumably be lower in a descending-bid auction because each bidder would only need to know its own cost in order to bid optimally. In the sealed-bid case, the bidders have an interest in acquiring additional information such as the distribution of costs across bidders.

We agree with the comments of AT&T that adding combinatorial bidding to this sealed-bid format increases complexity and may dramatically increase the scope for undesirable strategic bidding. AT&T offers the suggestion (similar to what we did in our initial comment) that aggregating census blocks into the larger tracts may be a sensible approach for this auction. The comments of Aleksandar Saša Pekeč provide suggestions for how to implement combinatorial bidding in a manageable way and also indicate that some of the proposals offered in the FCC's Public Notice may involve insurmountable computational difficulties.

2.1 Disbursement of support

Having considered AT&T's comment, we share the concern that they raise on p.16 that if the FCC disburses support based on the actual percentage of road miles covered, it may result in a substantial portion of the \$300 million budgeted for the Phase I Mobility Fund remaining unspent.