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December 11, 2015

VIA ECFS
Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Subject: *Written ex parte submission – WC Docket No. 10-90*
CAF Phase II competitive bidding requirements

Dear Ms. Dortch:

This letter follows up on the meetings that Hughes Network Systems ("Hughes") held last week with the Chairman's Office and Commissioners to discuss the Connect America Fund ("CAF") Phase II competitive bidding process in the above-referenced docket.[1] In response to questions from Commissioners and their staffs, Hughes offers the following two supplements to its proposals for the rules and procedures of the CAF Phase II competitive bidding process.

As discussed in more detail below, the issue of locations within a CAF Phase II awardee's service area that elect not to take broadband service is not unique to satellite-based providers, and there is no factual basis to handle such customers differently when the awardee in the area uses satellite technology. However, to the extent that the Commission wishes to address such locations, Hughes would be willing to agree to receive support only for locations where the customer takes service, on two conditions: (1) that the Commission reduces such providers effective bid amounts to recognize the reduced support costs that will be imposed on the fund, and (2) the Commission provides greater flexibility regarding the deadline to serve customer locations (because satellite providers cannot reserve satellite capacity for locations absent either support or customer revenue).

To account for speed, capacity, latency, and efficiency differences in networks, Hughes also proposes, as an alternative to its point system, a system of bidding credits.

Support for Locations in Award Areas That Decline Service. The FCC asked Hughes whether a satellite provider awardee in the Phase II support auction should receive support for locations where customers do not take service.

As an initial matter, Hughes observes that this same scenario will arise without regard to the technology used by the awardee. A fiber-based provider might receive support to extend service to a particular customer who may not elect to receive service, but under the Commission's proposal that fiber-based provider would still receive the CAF support associated with that location.

Since satellite providers in a significant number of cases may not be deploying new facilities to serve CAF customers, the subsidies will be used primarily to (1) cover the cost of equipment at the customer's location that is unique to satellite service, and (2) buy down the cost of satellite usage capacity to permit the satellite provider to offer a "reasonably comparable" amount of usage at a "reasonably comparable" price. If a customer in the awardee's support area declines service, the satellite provider will not incur the cost of the equipment to serve that customer. However, because the satellite provider will remain responsible to provide service to that location if the residents change their minds at any time during the term of the award, the satellite provider will still incur the "opportunity cost" of the capacity on its satellite necessary to serve that location if the residents ever elect to take service. This requirement will act as a concrete restriction on the satellite provider's ability to market its services to non-CAF customers served on the same satellite, particularly within the same satellite beam (which will encompass large areas outside the satellite provider's award area). Thus, just as in areas served by terrestrial

[1] *See* Letter from L. Charles Keller, counsel to Hughes, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Dec. 3, 2015).

technologies, satellite selectees will incur a concrete cost associated with all covered locations in the awardee's service area, irrespective of whether the resident elects to take service. Moreover, just as in areas served by terrestrial technologies, residents in covered locations that choose not to take broadband service generate no revenue for the selectee provider.

For all these reasons, customers that elect not to take service do not present a significantly different situation where the awardee uses satellite technology as opposed to any other technology. Thus, Hughes does not believe that any different rules are necessary to address such situations.

To the extent, however, that the Commission believes it needs to address such scenarios, Hughes proposes that the Commission allow or require satellite broadband providers (as well as any other bidders electing such treatment) not to receive support for locations that do not actually take service and instead to receive funding only for subscribers actually served.[2] Winning bidders should be required to report periodically (*e.g.*, quarterly) on the covered locations that they are actually serving (as well as locations to which they have extended new service), and USAC should distribute support to such awardees only for locations where the residents actually took service during the reporting period. For the sake of administrative simplicity, the awardee should receive support for a location in a given reporting period if the residents of that location took service at any time during the reporting period.

To reflect the fact that USAC will distribute less support to awardees that only take subsidies for customers that actually take service, the Commission should discount the bids from bidders operating under this election. Because there will be no way to know, at the time of the auction, what the actual take rate will be in bidders' award areas, the Commission should use as a proxy the nationwide broadband adoption rate provided in the most recent Measuring Broadband America ("MBA") report. As an example, consider an area with 100 available locations, where a satellite provider is bidding $75 in subsidy per location per month, for a total annual bid for the area of $90,000. If the most recent MBA report at the time of the auction shows a nationwide broadband take rate of 65% and the Commission declines to provide satellite providers with support for locations that do not take service, then this bidder would be considered to have bid $58,500 per year for the area (65% of $90,000).

This approach will allow the Commission equitably to compare bids from terrestrial providers who will receive support for all locations in their support areas, whether those customers take service or not, with satellite providers and other providers who elect to receive support only for locations that actually take service.

Deployment Milestones. The advantage of satellite technology is that providers are able to provide service to customers without the planning and construction delays inherent in the build-out of terrestrial broadband technologies. CAF Phase II awardees using satellite technology generally should have no problem meeting any "deployment milestones" the Commission imposes on all participants in the CAF Phase II competitive bidding process. This speed of service is an enormous benefit to the CAF program and a significant advantage that satellite providers offer compared to terrestrial providers. Satellite-based awardees' ability to provide service rapidly to any customer in their award areas will depend, however, on the Commission's approach to support for locations that decline service. If the Commission declines to provide satellite awardees with support for locations where the residents decline to take broadband service, satellite providers will have difficulty reserving the satellite capacity to serve those locations in the event the residents request service later.

If the Commission adopts Hughes' proposal that satellite awardees should receive support for all covered locations (including locations that decline to take service), just like all other awardees, satellite broadband providers would then be able to serve any customer in their award areas very quickly – subject only to equipment installation at the customer location. If satellite providers are eligible for full support as discussed above, Hughes has no objection to satellite-based awardees being required to serve any location in their award areas in a reasonably quick timeframe throughout the term of the award (*e.g.*, within 14 days from the date of customer request).

If the Commission elects not to compensate satellite awardees for locations that elect not to take service, satellite providers should receive flexibility comparable to other types of providers. For example, if the general

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[2] This is, for example, how Hughes received support in its successful NTIA Recovery Act support award.

obligation adopted for CAF Phase II is that providers must serve 60% of customers in their service areas by the end of the fourth year of the award term, satellite awardees should have the flexibility to take longer to respond to a comparable percentage of service requests (*e.g.*, 90-120 days from the date of customer request). Such a provision will allow satellite providers sufficient time, if needed, to allocate the satellite capacity necessary to serve the customer (*e.g.*, by reallocating capacity freed up as a result of normal attrition). Satellite providers are likely to be able to serve more customers more quickly over the course of the award term because they will gain increased insight into demand trends (allowing more precise planning), and may be able to launch additional satellites to increase capacity. Of course, satellite provider awardees will make every effort to serve customers as soon as practicable and likely will serve many customers requesting service much more quickly than required – and in all cases more quickly than providers using terrestrial technologies. But, if the Commission declines to make support available to satellite providers for locations where the residents do not subscribe to broadband service, satellite providers will need additional flexibility to allocate satellite capacity.

Alternative Weighting Proposal Based on Bidding Credits. In earlier filings, Hughes proposed a point system for the Commission to use to account for the differing characteristics that different broadband network types offer to consumers.[3] The point system recognizes that there are four characteristics that are most relevant to the CAF Phase II analysis – speed, usage/capacity, latency, and bid amount (efficiency). In discussions with Commissioners and their staffs, Hughes was asked to present this proposal in the alternative as a bidding credit approach. Hughes therefore does so below. Hughes believes that either a point system or a bidding credit approach would be acceptable, and that either system would be preferable to an approach involving the segregation of bids based on technology.

A bidding credit approach requires capturing all four of the factors addressed by the point system in terms of bid amounts. Since the bid amount is itself already one of the four factors, the goal is to incorporate the other three factors into bidding credits. In the point system, each of the four factors is equally weighted, accounting for 25 out of 100 total possible points. Thus, for purposes of bidding credits, Hughes proposes that each of the other three factors (speed, usage/capacity, and latency) would be allowed to exert up to a 25% impact on the bid amount. Hughes further proposes that the Commission establish a "baseline value" for each factor at which that factor will exert no impact on the bid amount (*i.e.*, no bidding credit will be provided). Bids offering more than the baseline value would result in a credit decreasing the effective bid amount, and bids offering less than the baseline value would result in a credit increasing the effective bid amount.[4] In other words, if an applicant bid $10,000 on a given area, and received the maximum possible bidding credit for speed, the applicant's bid would be treated as $7,500.

Applying this approach to the three factors at issue, and using generally the same tier structure as proposed for the point system, the following is an illustrative bidding credit framework:

Factor	Bid Proposal	Bidding Credit[4]
Speed (*Illustrative baseline = tier including 10 Mbps*)	30-75 Mbps	-25%
	18-25 Mbps	-15%
	12-15 Mbps	-10%
	6-10 Mbps	0
	1-5 Mbps	+12%
	<1 Mbps	+25%
Usage/Capacity (*Illustrative baseline = 50 GB*)	Unlimited	-25%
	100 GB	-12%
	50 GB	0
	20 GB	+5%

[3] Letter from L. Charles Keller, counsel to Hughes, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Nov. 13, 2015) at 4-6; Letter from L. Charles Keller, counsel to Hughes, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Dec. 3, 2015) attachment at 2 (chart).

[4] Superior values result in *negative* bidding credits because, in a reverse auction, *lower* bids are more attractive.

	15 GB	+10%
	5 GB	+15%
	<5 GB	+25%
Latency (*Illustrative baseline = 800 ms*)	200 ms	-25%
	800 ms	0
	>800 ms	+25%

Hughes looks forward to continuing to work with the Commission and its staff to structure CAF Phase II competitive bidding requirements that are fair, competitively neutral, and will provide the best value and service to American consumers.

Sincerely,

/s/
Jennifer A. Manner
Vice President, Regulatory Affairs

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