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November 30, 2015

VIA ECFS

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

Re: *Unredacted ex parte letter of Hughes Network Systems - WC Docket No. 10-90*

Dear Ms. Dortch:

On November 13, 2015, Hughes Network Systems, LLC (“Hughes”) submitted an ex parte presentation including an analysis by CostQuest Associates (“CostQuest Study”).¹ Today the Wireline Competition Bureau entered into the record an unredacted version of the CostQuest Study.² Hughes accordingly submits an unredacted version of the accompanying letter, which was redacted to conform to the redactions in the CostQuest Study.

Sincerely,

/s/
L. Charles Keller

¹ Letter from L. Charles Keller, counsel to Hughes, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed Nov. 13, 2015).

² Letter from Ian M. Forbes, Wireline Competition Bureau, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Nov. 30, 2015).

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BY HAND

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

Re: Written ex parte presentation – Hughes Network Systems; CAF Phase II
Competitive Bidding (WC Docket No. 10-90)

Dear Ms. Dortch:

This filing on behalf of Hughes Network Systems (“Hughes”) builds on Hughes’s previous filings in this docket in connection with the Commission’s consideration of criteria for participation in the Connect America Fund (“CAF”) Phase II competitive bidding process. This filing includes information that is subject to the Third Supplemental Protective Order in this proceeding.¹ As discussed below, Hughes provides a study that demonstrates that the Commission must ensure that the rules adopted for the CAF Phase II competitive bidding process encourage the broadest possible participation by a range of different types of broadband service providers, including satellite broadband providers and allow service to a large number of American consumers. Hughes also provides concrete suggestions for a framework for evaluating bids from different technologies that gives appropriate weight to different service characteristics and bid levels.

CostQuest Study. Attached is a study by CostQuest Associates (“CostQuest”) which further demonstrates the importance of ensuring that satellite broadband providers have an equitable opportunity to compete to serve customers in the CAF Phase II competitive bidding process, and that no subset of bidders should be entitled to bid above a “reserve price” set at or

¹ *Connect America Fund*, WC Docket No. 10-90, Third Supplemental Protective Order, 27 FCC Rcd 15277 (WCB 2012).

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below the model-determined support amount for a given area.² Excluding lower-cost broadband providers, including satellite broadband providers, and/or allowing some bidders to proffer bids above the model-based support amount, will exhaust the available funds well before all eligible locations are reached. This would mean that CAF Phase II will leave significant numbers of Americans in rural and high-cost areas without support to ensure they receive broadband service. Such a result would be contrary to the Commission's goals in this proceeding.³

The study analyzes six different scenarios based on information from the Commission's Connect America Cost Model ("CACM") and addresses the areas that are slated to be included in the CAF Phase II competitive bidding process – the areas where the price cap incumbent declined the model-based offer of support and those where the cost of service was above the very high-cost threshold. The study assumes that the amount of support available in the auction is equal to the amount of funding declined by the price cap incumbents plus the \$100 million in annual support that was set aside for the Remote Areas Fund ("RAF"). The scenarios make a variety of assumptions about winning bid levels in the competitive bidding process and demonstrate the impact of different winning bid levels on the number of customers receiving service as a result.

The study shows the importance of ensuring that customers in CAF Phase II are served as efficiently as possible. First, the study shows that, given the amount of support available, ensuring service to all of the eligible customers requires an average amount of support per line in the range of \$254 – \$420 per year.⁴ This is a small amount of support, and well below the model-determined support levels, compellingly showing the importance of allocating CAF Phase II support efficiently.

In addition, the study shows that if all bids in the auction come in at the model-based support amount, only between 46% and 75% of customers will receive support – a small percentage of potential beneficiaries. The Commission will be unable to ensure service to the remaining customers – potentially more than half of all of the eligible locations available in the

² See Letter from Jennifer A. Manner, Hughes, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Oct. 26, 2015) at 1; letter from L. Charles Keller, counsel to Hughes, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Oct. 19, 2015) at 1.

³ See, e.g., *Connect America Fund, et al.*, WC Docket Nos. 10-90 *et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17668 ¶ 5 (2011) ("*USF/ICC Transformation Order*"), *aff'd sub nom. In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014) ("The universal service challenge of our time is to ensure that all Americans are served by networks that support high-speed Internet access—in addition to basic voice service—where they live, work, and travel.").

⁴ Because the Commission has not clarified a number of issues related to the number of locations that remain available in the areas where the incumbent price cap carriers declined model-based support (described in the study), there are three possible sets of results for each scenario. Although the specific results vary depending on how these issues are resolved, the basic trends and conclusions that can be drawn from the numbers do not.

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bidding process. This shows the importance both of not allowing bids to go above the model-based level, and taking aggressive steps to ensure that more efficient providers are able to participate in the auction to bring bid levels down below model-determined levels.

Moreover, the study demonstrates the benefit of creating circumstances where the bids in the very high-cost areas are well below the model-based support level. Specifically, if all bids outside the very high-cost areas come in at the model-based level, then the amount of support available for the very high-cost locations will be only \$482.87 per location per year – a very low number to serve the highest-cost and hardest-to-serve locations – depriving many users of access to critical broadband services. Moreover, if bids in the very high-cost areas are capped at \$1,500 per line per year (a randomly selected number below the average cost in these areas) and bids in the other areas remain at model-based levels, the percentage of eligible locations receiving service increases by about 3 percentage points (from about 75% to about 78%⁵) as compared to the scenario where all bids are at model-based levels – resulting in significantly fewer customers left without any support for broadband service under CAF Phase II.

Finally, the study shows that if the winning bids for any significant number of locations are above the model-determined support amount, significantly more customers will remain unserved. For example, even if support in the very high-cost areas is held to \$1,500 per line, if only the lowest-cost 40 percent of locations are bid at 200% of the model-based support amount, the number of customers receiving service falls by about 5 percentage points (from about 46% to about 41%⁶) as compared to the scenario where all bids are at model-based levels. Further, if a random sampling of bids comes in at 200% of model-based levels, the number of customers served falls to between 9% and 31%. In other words, under this scenario, less than 10% of covered locations might receive service under CAF Phase II.

The results of this study show that the Commission must ensure that the rules for the CAF Phase II competitive bidding process encourage the broadest possible participation by a range of different types of broadband service providers, including satellite broadband providers. Broader participation will help ensure a more competitive bidding process, lower bids, and fewer customers left without support. It also shows that no group of bidders – particularly those using a high-cost technology such as fiber – should be allowed to bid above the model-based support level. Hughes strongly encourages the Commission to adopt CAF Phase II rules consistent with these principles.

Criteria for Bid Evaluation. Hughes also takes this opportunity to provide a proposal for technology-neutral criteria to evaluate bids from providers with different service characteristics. As Hughes previously has demonstrated, consumers value a variety of different qualities when

⁵ As noted above, the precise output depends upon the assumption set selected.

⁶ Again, the output depends upon the assumption set selected.

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they select a broadband service provider.⁷ As a result, the competitive bidding structure similarly should place reasonable weights on the relevant factors, including speed, latency, and capacity constraints. Of course, a significant factor also must be the subsidy level at which the provider is willing to provide service. Consistent with the principles that the Commission set out in the National Broadband Plan and the *USF/ICC Transformation Order*, the CAF must ensure that the highest-cost areas are served with more efficient technology to avoid an excessive contribution burden on all American consumers.⁸

Hughes therefore proposes that all CAF Phase II bids be reviewed using a weighting structure in which (1) proposed speed; (2) latency of the service; (3) capacity constraints; and (4) proposed subsidy level are equally weighted (i.e., each is weighted 25 percent) in the evaluation of bids. This approach is superior to placing bidders in arbitrary priority tiers based on the technology used or the characteristics of that technology. Hughes proposes that the Commission implement this weighting structure by establishing a system of points for performance within each factor. For simplicity, each factor could be assigned 25 points, for a total of 100 points. The Commission should use available data such as the Measuring Broadband America (“MBA”) Report to establish the point system for each factor.

For example, the most recent MBA Report expresses data speed performance in five tiers – 1-5 Mbps; 6-10 Mbps; 12-15 Mbps; 18-25 Mbps; and 30-75 Mbps.⁹ Each tier could be assigned 5 points, as follows:

SPEED	
Proposed speed in bid	Points
30-75 Mbps	25
18-25 Mbps	20
12-15 Mbps	15
6-10 Mbps	10
1-5 Mbps	5
<1 Mbps	0

⁷ See, e.g., Prof. Andre Boik, U.C. Davis, “The Economics of Universal Service: An Analysis of Entry Subsidies for High Speed Broadband,” attachment to letter from L. Charles Keller, counsel to Hughes, to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Oct. 9, 2015).

⁸ NATIONAL BROADBAND PLAN at 150 (Rec. 8.13); *USF/ICC Transformation Order*, 26 FCC Rcd at 17675 ¶ 30; see also *id.* at 17728 ¶ 168 (the FCC must balance its “desire to extend robust, scalable broadband to all Americans with [a] recognition that the very small percentage of households that are most expensive to serve via terrestrial technology represent a disproportionate share of the cost of serving currently unserved areas.”).

⁹ FCC, 2014 MEASURING BROADBAND AMERICA FIXED BROADBAND REPORT: A REPORT ON CONSUMER FIXED BROADBAND PERFORMANCE IN THE U.S. (2014) (“MBA Report”) at 28-30.

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With regard to usage, the Commission could begin with the current CAF standard of 100 GB, and assign the full 25 points to any bids meeting or exceeding this threshold. Further, the MBA data show that the 50th percentile of data usage for customers of terrestrial fixed broadband services ranges from approximately 25-50 GB,¹⁰ and that the 90th percentile for such users ranges from 5-15 GB. These data suggest that the following would be a fair point allocation:

USAGE/CAPACITY	
Proposed Usage Limit in Bid	Points
100 GB	25
50 GB	50
20 GB	15
15 GB	10
5 GB	5
<5 GB	0

For latency, the MBA data show that terrestrial fixed services experience latency in the 24-63 ms range, while satellite broadband services experienced latency in the 671 ms range due to the physical constraints of the service.¹¹ The data also show that latency is slowly increasing year over year across all technologies.¹² Hughes therefore proposes that offerings able to provide the current CAF standard for latency (200 ms) should receive the full allocation of 25 points, while services able to meet a 800 ms standard should receive 20 points. Services with latency above 800 ms should receive 0 points.

In order to weight the subsidy level or bid amount, Hughes proposes that the Commission consider the extent to which the bid is below the model-determined support amount. Until the bidding occurs, it is difficult to predict the extent to which bidding will be below the model-determined support levels. Hughes therefore proposes that, once the Commission receives bids, the Commission should consider (1) the maximum extent to which bids are below model-determined amounts and (2) the distribution of bid levels relative to model-determined support amounts, and set a reasonable allocation of points in light of these considerations.

¹⁰ *Id.* at 50-51.

¹¹ *Id.* at 35.

¹² *Id.*

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In sum, in order achieve its goals of extending broadband service to all Americans without unduly burdening contributors to universal service, the CAF Phase II bidding structure must encourage broad participation in a truly competitive auction in which more efficient technologies such as satellite have a realistic chance of being the winning bidders in the highest-cost areas that they are best-equipped to serve. The Commission can do this by avoiding priority tiers of bidders and instead applying a bid weighting structure that equally weights speed, latency, capacity, and subsidy (bid) level.

Sincerely,

WILKINSON BARKER KNAUER, LLP

L. Charles Keller

Enclosure

cc: Stephanie Weiner
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