



February 12, 2019

**Via ECFS**

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

**Subject:** *Notice of ex parte presentation  
Petitions for Reconsideration of CAF-II Metrics Order (WC Docket No. 10-90)*

Dear Ms. Dortch:

On February 11, 2019, Hughes Network Systems, LLC (Hughes) met with Thomas M. Johnson, Jr., General Counsel, and Linda Oliver, Associate General Counsel. Hughes was represented by the undersigned, and outside counsel Russel P. Hanser and L. Charles Keller. Hughes's presentation in the meeting followed the attached talking points, which were distributed to the meeting attendees.

Please direct any questions regarding this filing to the undersigned.

Sincerely,

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

Attachment

cc: Thomas M. Johnson, Jr.  
Linda Oliver



## CAF-II Metrics Order Petitions for Reconsideration

OGC February 2019

### BACKGROUND

- The Commission adopted as a goal of the CAF-II auction that it be technology-neutral and lead to competitive outcomes.
  - In crafting rules for the CAF-II auction, the Commission set out to “provid[e] households in the relevant high-cost areas with access to high-quality broadband services, while making the most efficient use of finite universal service funds.” (FCC 17-12, ¶ 12) The Commission stated: “We want this to be a competitive auction where every bidder has the opportunity to exert competitive pressure on all other bidders.” (*Id.* ¶ 21)
  - To balance these objectives, the Commission established:
    - Four performance tiers
    - Two latency tiers
    - A bid-weighting matrix designed to rank bids in these tiers so that bids at lower speeds and usage allowances and/or higher latency “will still have the opportunity to compete for support, but will have to be particularly cost effective to compete with higher tier bids,” but where “bids placed in higher tiers will not necessarily win because of the generally greater costs of deploying a higher capacity network at higher speeds.” (*Id.* at ¶ 27)
  - Each tier has performance requirements associated with it. Bidders in the high-latency tier must demonstrate:
    - Latency at or below 750 ms.
    - Voice quality meeting a “Mean Opinion Score” (MOS) of 4 or greater.
- The Commission set the same goals for the New York CAF Auction.
  - In January 2017, the Commission granted a waiver request from the State of New York to allow the distribution of CAF-II support in New York outside the FCC’s CAF-II auction and through New York’s competitive process for distributing state broadband funding. (FCC 17-2)
  - The Commission required New York to “adopt a technology-neutral allocation methodology as a condition of this waiver” (¶ 29) and stated that that “satellite providers must be given the opportunity to compete for Connect America support that is allocated in partnership with New York’s program” (¶ 42).
- In July 2018, WCT, WTB, and OET released an Order to establish testing parameters for demonstrating compliance with the performance requirements associated with CAF-II support recipients.
  - The Order requires high-latency bidders to use a testing methodology to make their MOS voice quality showing that differs from the ITU-T standard noted by the full Commission, and which geostationary satellite providers may not be able to achieve.
  - The Order was released after the NY auction and before the CAF-II auction.

## THE ISSUE

- Guarding against illegal retroactive rulemaking.

Date	Release	Action
5/26/16	FCC 16-64 <i>CAF-II Order</i>	<ul style="list-style-type: none"> <li>High-latency bidding tier established for CAF-II auction.</li> <li>High-latency bidders must: <ul style="list-style-type: none"> <li>Show 95% or more of all peak period latency measurements at or below 750 ms.</li> <li>“Demonstrate a score of four or higher using the [MOS].” “[S]ubmit laboratory testing consistent with the International Telecommunications Union recommendations P.800” [which includes both listening-opinion and conversational-opinion tests].<sup>1</sup></li> </ul> </li> </ul>
7/5/16		<ul style="list-style-type: none"> <li>ADTRAN Petition for Clarification or Reconsideration asks FCC to specify that only conversational-opinion test component of ITU-T P.800 standard should be permitted.</li> </ul>
1/26/17	FCC 17-2 <i>NY Waiver Order</i>	<ul style="list-style-type: none"> <li>CAF support offered in NY would be distributed through the New NY Broadband Program auction.</li> <li>NY must allow high-latency bidders and “satellite providers must be given the opportunity to compete.”</li> <li>High-latency bidders must: <i>[identical to FCC 16-64]</i> <ul style="list-style-type: none"> <li>Show 95% or more of all peak period latency measurements at or below 750 ms.</li> <li>“Demonstrate a score of four or higher using the [MOS].” “[S]ubmit laboratory testing consistent with the International Telecommunications Union recommendations P.800.”</li> </ul> </li> </ul>
8/15/17	<i>NY Auction</i>	<ul style="list-style-type: none"> <li>Final deadline for bids in New NY Broadband Program auction.</li> </ul>
1/31/18	FCC 18-5 <i>CAF-II Recon Order</i>	<ul style="list-style-type: none"> <li>“[W]e clarify that the Commission has not yet specified which of the methods for subjective determination of transmission quality identified in ITU-T Recommendation P.800 should be used to demonstrate compliance with the second part of the two-part standard (MOS of four or higher).”</li> <li>“We find that there is <i>insufficient information in the record to specify</i> which of the ITU’s recommended options applicants should be prepared to use to demonstrate an MOS of four or higher.” (emph. added)</li> <li>“We expect that the specific methodology will be adopted by the Bureaus and the Office of Engineering and Technology by June 2018.”</li> </ul>
		<ul style="list-style-type: none"> <li><i>[No comment is sought.]</i></li> <li><i>[No new information enters the record.]</i></li> </ul>
2/1/18	FCC 18-6	<ul style="list-style-type: none"> <li>CAF-II Auction Procedures PN released.</li> </ul>
7/6/18	DA 18-710	<ul style="list-style-type: none"> <li>“We agree with ADTRAN that listening-opinion tests would not suffice to demonstrate a high-quality consumer voice</li> </ul>

<sup>1</sup> The ITU-T P.800 specification establishes both listening-opinion and conversational-opinion tests. See International Telecommunication Union, Telecommunication Standardization Sector, Series P: Telephone Transmission Quality, Methods for objective and subjective assessment of quality, P.800 (Aug. 1996).

	<i>Metrics Order</i>	<p>experience.... Therefore, we require that high-latency providers conduct an ITU-T Recommendation P.800 conversational-opinion test.... Specifically, we require the use of the underlying conversational-opinion test requirements specified by the ITU-T Recommendation P.800, with testing conditions as described below [specifying use of operational network infrastructure and actual customer locations and end-user equipment, which differs from the P.800 specifications].”</p> <ul style="list-style-type: none"> <li>• Does not mention New York CAF program.</li> </ul>
7/16/18 7/19/18		<ul style="list-style-type: none"> <li>• Hughes ex parte letters to FCC expressing concerns about the impact of requiring use of the conversational-opinion test and noting that the <i>Metrics Order's</i> changes to the P.800 protocol cannot be applied to NY auction which was already completed.</li> </ul>
7/23/18		<ul style="list-style-type: none"> <li>• Viasat ex parte letter to FCC expressing concern about <i>Metrics Order</i>.</li> </ul>
7/24/18- 8/21/18	CAF-II Auction	<ul style="list-style-type: none"> <li>• CAF-II Auction bidding period.</li> </ul>
9/15/18		<ul style="list-style-type: none"> <li>• Long-form applications due committing winning bidders to CAF-II auction winning bids.</li> </ul>
9/19/18		<ul style="list-style-type: none"> <li>• Due date for petitions for reconsideration of <i>Metrics Order</i>. <ul style="list-style-type: none"> <li>◦ Hughes Petition filed.</li> <li>◦ Viasat Petition filed</li> </ul> </li> </ul>

- Unlike other testing parameters set in the *Metrics Order*, the change to the MOS testing framework affects a fundamental gating criterion for auction participation.
  - Per ITU-T G.107 tool for estimating MOS scores, a network with 600 ms roundtrip latency (i.e., a geostationary satellite network) achieves at best a MOS of 3.7 using the conversational-opinion test.
- Two petitions for clarification/reconsideration of the *Metrics Order* related to MOS testing:
  - Hughes: *Metrics Order's* modifications to the MOS testing framework should not apply to the NY auction, which occurred before the *Metrics Order* was released. (*Metrics Order* also does not mention the NY program.)
  - Viasat: Change the *Metrics Order's* approach to MOS testing now, after the CAF-II auction has closed.
- Applying the *Metrics Order's* changes to the MOS testing framework to the NY auction would be illegal.
  - **Retroactive rulemaking:** Changes what the rule was at the time of the NY auction (“showing of MOS 4 or higher using the ITU-T P.800 protocol”). Effectively imposes a penalty for past actions (satellite bidder placed in possible violation of performance obligations assumed at the time of the auction).
    - *Landgraf*: “impairs rights a party possessed when he acted, increases a party’s liability for past conduct, or imposes new duties with respect to transactions already completed.”
    - *Bowen (Scalia, concurring)*: does “not merely affect past transactions but change[s] what was the law in the past.”

- **Secondary retroactivity:** Upsets investment expectations made in reliance on the regulatory status quo before the *Metrics Order* was adopted, and decision was not reasonable.
  - Bureaus made their decision on the basis of a record that the full Commission had called “insufficient” and provided no explanation for its about-face on the state of the record.
- Applying the *Metrics Order*’s modifications to the MOS testing framework to New York is not necessary to ensure that New York consumers receive high-quality voice service.
  - High-latency bidders in NY still have to meet the following:
    - Latency not exceeding 750 ms.
    - MOS of 4 or greater using the ITU-T P.800 standard protocol.
  - Note: Hughes voice customers are satisfied.
    - Demand for Hughes’s VoIP product is strong and growing, despite a \$25-\$29 additional charge for the service (depending on promotions).
    - Hughes’s VoIP product incorporates industry-leading features to maximize voice quality.
    - Hughes’s churn is lower among voice/broadband customers than among broadband-only customers.
    - Hughes overall broadband churn rate is low and declining.