

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	1.
Connect America Fund)	WC Docket No. 10-90
)	
Competitive Bidding Procedures and Certain)	AU Docket No. 17-182
Program Requirements for the Connect)	
America Fund Phase II Auction (Auction 903))	
)	

COMMENTS OF ADTRAN. INC.

ADTRAN, Inc. (“ADTRAN”) comments briefly on two issues raised by the Commission’s *Public Notice* seeking comment on the competitive bidding procedures and pre-auction application processes for the upcoming Connect America Fund Phase II subsidy auction.¹ ADTRAN participated in earlier phases of this proceeding, and applauds the Commission for adopting technology-neutral rules as ADTRAN had advocated. ADTRAN also believes that the subsidies that will be awarded pursuant to this program should help speed the deployment of robust broadband service to unserved areas in the price cap regions of the United States, and thus will well serve the public interest. However, ADTRAN has concerns with two aspects of the proposed auction rules and procedures.

First, the *Public Notice* asks whether an applicant should be “limited to bidding on performance tier and latency combinations that they or similar providers are currently offering.”²

¹ *Public Notice*, Comment Sought on Competitive Bidding Procedures and Certain Program Requirements for the Connect America Fund Phase II Auction, FCC 17-101, released August 4, 2017 (hereafter cited as “*Public Notice*”).

² *Public Notice* at ¶ 50.

ADTRAN does not believe that it would serve the public interest to limit applicants to currently offered technologies. The Commission will be funding the CAF Phase II subsidies for a ten-year period. Given the rapid pace of broadband technology developments, it makes no sense to restrict applicants to currently offered technology. While ADTRAN can appreciate the Commission's wanting to avoid applicants from relying on futuristic, speculative and/or untested technologies, the suggested limitation could also preclude applicants from proposing to utilize technologies that are in pilot or beta-testing, and that will be available for commercial deployment by the time the applicant is ready to begin fulfilling its commitments under the CAF Phase II subsidy program.

The onus is on the applicant, if it is the successful bidder, to meet its obligations to deploy service consistent with its promises. And if it fails to do so, it faces significant penalties. As a result, ADTRAN believes the applicant is in the best position to judge whether it will be able to rely on a particular technology – whether currently offered or not – to meet the qualifications for the selected performance tier within the mandated timeframes. Thus, ADTRAN urges the Commission not to limit applicants only to currently offered technologies.

Second, the *Public Notice* seeks to implement, *inter alia*, the *CAF Auction Order*,³ which established the performance parameters for broadband service provided via satellite. ADTRAN had filed a Petition for Clarification or Reconsideration of the *CAF Auction Order*.⁴ In that petition, ADTRAN explained that there was some uncertainty with regard to the ability of the satellite service to support voice service. According to the *CAF Auction Order*, where the

³ *Connect America Fund*, 31 FCC Rcd 5949 (2016) (hereafter cited as “*CAF Auction Order*”).

⁴ ADTRAN Petition for Clarification or Reconsideration in WC Docket Nos. 10-90, 14-58 and 14-259, filed July 5, 2016 (hereafter “*Petition*”).

applicant selects the high latency option, it must meet a two-part standard: (1) a requirement that 95 percent or more of all peak period measurements of network round trip latency are at or below 750 milliseconds, and (2) with respect to voice performance, a requirement that high latency bidders be able to demonstrate a score of four or higher using the Mean Opinion Score (MOS).⁵

ADTRAN was concerned and filed its Petition because the *CAF Auction Order* stated that “[b]idders committing to provide a MOS of four or higher should be prepared to submit laboratory testing consistent with International Telecommunication Union recommendations P.800.”⁶ However, as ADTRAN had explained previously, the referenced ITU standard – ITU-T Recommendation P.800 -- includes both Conversation-opinion tests and Listening-opinion tests.⁷ In the latter set of tests, conversational quality is not included in the analyses, because the test subjects listen to a prerecorded set of messages in a sound booth and evaluate the quality of those pre-recorded messages. Thus, for at least some forms of MOS testing under the referenced standard, the quality of a two-way telephone conversation is not taken into account. As the ITU Recommendation observes:

Results of listening-only tests can be applied, but only with certain reservations, to the prediction of the assessment for conversation conducted over a two-way system, such as a connection in a public switched telephone network. The provisos are that the effects of the following additional factors are duly taken into account:

- talking degradations (*e.g.* sidetone and echo);
- conversation degradations (*e.g.* propagation time and mutilation of speech by the

⁵ *CAF Auction Order* at ¶ 30.

⁶ *CAF Auction Order* at n. 62 (referencing International Telecommunication Union, Telecommunication Standardization Sector, Series P: Telephone Transmission Quality, Methods for objective and subjective assessment of quality, P.800 (Aug. 1996)).

⁷ *See*, Letter from Stephen L. Goodman, Counsel to ADTRAN, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, *et al.* (filed December 30, 2015).

action of voice-operated devices).⁸

Thus, ADTRAN sought clarification that if an applicant will be selecting the high-latency option, the applicant must be prepared to demonstrate that its service meets the MOS score of four or higher under ITU-T Recommendation P.800 using the Conversational-opinion tests (and not the Listening-opinion tests). Alternatively, if the Commission had intended to allow an applicant to demonstrate compliance with the requirement of an MOS score of four or higher using either the conversational or listening test, ADTRAN sought reconsideration of that decision. ADTRAN urges the Commission to address this issue raised by the Petition promptly so that applicants proposing to use satellite service can factor this technical issue into their applications. ADTRAN believes that this proposed clarification/reconsideration, combined with not restricting applicants to currently deployed technologies, will best serve the public interest.

Respectfully submitted,
ADTRAN, Inc.

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⁸ ITU-T Recommendation P.800, "Methods for Subjective Determination of Transmission Quality," (August, 1996), available at <http://www.itu.int/rec/T-REC-P.800-199608-I/en>, at p. 4.