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May 18, 2016

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 - 12th Street, S.W.
Washington, D.C. 20554

Ex Parte

Re: Written Ex Parte Presentation, WC Docket No. 10-90.

Dear Ms. Dortch:

The Utilities Technology Council (UTC) is providing the following ex parte notification in the above-referenced proceeding in accordance with Section 1.1206 of the Commission's Rules. On May 18, 2016, Jack Richards from the law firm of Keller & Heckman, LLP (on behalf of the National Rural Electric Cooperative Association ("NRECA")) and Brett Kilbourne on behalf of UTC met with Amy Bender, Legal Advisor, Wireline for the Office of Commissioner O'Rielly to discuss matters related to the above-referenced proceedings.

During the meeting, UTC and NRECA reiterated their support for a framework for the reverse auction in Phase II of the Connect America Fund which would promote the deployment of future-proof broadband networks and provide access to broadband services in rural America that are reasonably comparable in terms of quality and cost to the types of broadband services that are available in urban areas. Specifically, the Commission should set minimum requirements for broadband in terms of speed, latency and usage allowances. The Commission should require projects to provide minimum initial speeds of 25/3 mbps, which is consistent with the FCC's current definition of broadband.[1] In addition, the Commission should require that the networks be capable of providing 100 mbps downstream/25 mbps upstream; have no more than 100 ms latency; and at least 100 GB usage allowance, consistent with the current requirements for Rural Broadband Experiments. The Commission should set these minimum requirements for broadband in order to ensure that rural America is not left behind with substandard services. In addition, the Commission should require that projects be scalable to meet more stringent requirements over the ten year funding period in order to keep pace with evolving broadband capabilities. Projects that do not meet these minimum requirements should be ineligible.

[1] *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, GN Docket No. 14-126, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, 30 FCC Rcd 1375 at ¶45 (2015) (*2015 Broadband Progress Report*) (stating "we find that a 25 Mbps/3 Mbps benchmark reflects "advanced" telecommunications capability.").

Projects should be scored by establishing appropriate weights for the criteria of speed, latency and usage allowances, each of which would represent a maximum of 25 percent of the overall score (75 percent in total). The remaining 25 percent of the overall score would be based upon the percentage of the available funds that were bid for the project. In general, projects should be credited for substantially exceeding the minimum requirements, and should not be credited for merely meeting the minimum requirements. If the Commission allows projects to meet some but not all of the requirements, there should be substantial demerits assessed for failing to meet the minimum requirements for speed, latency or usage allowances. Consistent with their previous submissions on the record, UTC and NRECA propose the following scale for weighting the criteria and scoring the project up to 100 percent.

Download Speed	Weighting
> 250mbps	25 percent
100-250	10 percent
25-100	0
< 25mbps	Ineligible or -25 percent

Data Allowance	Weighting
Unlimited	25 percent
100 - 250GB	0
< 100GB	Ineligible or -25 percent

Latency	Weighting
< 50ms	25 percent
< 100ms	0
> 100ms	Ineligible or -25 percent

Percentage of Available Funds Bid in a Census Block	Weighting
<10%	25 percent
<25%	20 percent
<50%	15 percent
<75%	10 percent
<100	0

The Commission should refrain from reallocating the available funds from state-to-state or between census blocks. In that regard, UTC and NRECA support the comments on the record that opposed any reallocation of available funds.[2] The reason is simple. Spreading the available funding too thinly will make it impractical for providers to bid to provide service into many

[2] Letter from Howard Zenisky, Empire State Development to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed Apr. 12, 2016). *See also* Letter from Clifford M. Sloan and John M. Beahn, Counsel for Empire State Development to Marlene H. Dortch, FCC, WC Docket No. 10-90 (filed May 17, 2016).

areas. While reallocating funding into other areas may make those areas more economical for providers to serve, the marginal gains in funding for those areas would be dramatically outweighed by the losses in areas where funding was withdrawn. Attempting to provide funding for all will likely result in lower quality service or service to fewer people overall as a practical matter. The Commission should also recognize that the current funding levels for each census block were based on the cost model and that reallocating that funding to other areas will necessarily mean that there will be insufficient funding to cover the cost of serving unserved areas where funding was withdrawn. Therefore, the Commission should refrain from creating unnecessary complexity and uncertainty into the process by reallocating funding to other areas.

Consistent with other comments on the record, the Commission should move forward and establish a framework for the reverse auction that is simple and supports the deployment of future-proof broadband networks that provide broadband services that are reasonably comparable to the types of broadband services that are available in urban areas.[3] Minimum requirements are key to ensuring that rural America isn't left behind with substandard broadband services, and the Commission is right to set latency and usage allowance requirements, as well as speed requirements. Latency and usage requirements can have a significantly detrimental effect on the quality of interactive services, such as voice over Internet protocol (VoIP). This is especially important during the IP Transition, because a growing number of rural Americans may be left with poor quality voice services if minimum requirements for latency are not established for broadband services that are funded by CAF. Similarly, latency is important to support health care broadband applications, which is also increasingly important for rural America.[4] Sub-50 millisecond latency levels are required for primary communications systems by health care providers. These low-latency requirements are also applicable to support utility communications applications, as well. Substation monitoring and control, electric transmission and distribution teleprotection, and synchrophasors need similar low latency and highly reliable communications systems, which is also a challenge in rural America where there is often a lack of access to suitable communications networks. Finally, usage allowances especially affect rural America, where income levels are generally lower than in urban areas and where restrictions can discourage Internet adoption. By contrast, the FCC has found that Internet adoption is roughly the same in rural and urban areas where subscribers have access to broadband services that provide 25/3 mbps bandwidth speeds.[5] For all of these reasons, the Commission should adopt

[3] Letter from Thomas Cohen, Counsel for the American Cable Association to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (filed May 13, 2016). *See also,* Letter from Jack Richards, Keller & Heckman to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90, et al. (filed Feb. 16, 2016)(attaching a letter signed by 36 organizations representing various rural interests, stating that the Commission should adopt a framework that promotes the deployment of future-proof broadband networks, and not simply the lowest cost network.)

[4] *See* National Broadband Plan, Health Care Broadband in America, FCC (Aug. 2010), at https://transition.fcc.gov/national-broadband-plan/health-care-broadband-in-america-paper.pdf, visited (May 18, 2016) (stating that "Quality-of-service metrics are also crucial to health IT utilization," and that "Latency, reliability, packet loss, and jitter can be even more important than bandwidth in supporting applications.")

[5] *See* Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, 2016 Broadband Progress Report, GN Docket No. 15-191, at 46, ¶100, Table 10

minimum requirements for latency and usage allowances, as well as speed, for broadband projects funded by CAF.

The Commission should also promote the deployment of broadband networks that are capable of keeping pace with increasing consumer expectations, and which also are capable of advancing other overarching national policy objectives. Deploying broadband technologies that meet evolving broadband standards over the 10-year period is central to the Commission's CAF II competitive bidding policies.[6] Continuing enhancements to capacity in fiber-optic networks through steady advances in the electronics used to "light" dark fiber are widely recognized, as are the benefits of advanced modems such as DOCSIS 3.1 for existing fiber-coaxial cable infrastructure.[7] Over and above the Commission's recent finding that satellite service is not a substitute for fixed terrestrial broadband services, satellite capacity expansion requires both substantial upfront investments and extended lead times to construct and deploy new satellites.[8] In addition, satellite capacity is shared between subscribers, which will result in substantially reduced throughput to each subscriber.

The limited funds available for the CAF II reverse auction should support investments in broadband infrastructure that benefit rural residents and communities consistent with other Commission policies.[9] Fiber and fiber-coaxial cable technologies are the most capable, by far, in terms of meeting the100+ Mbps targets for high speed Internet access service to schools and libraries under the Commission's E-Rate program.[10] Similarly, fiber-based networks are far

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(FCC 16-6, rel. January 29, 2016) (*"2016 Broadband Progress Report")*(finding that Americans living in rural and urban areas adopt broadband at similar rates where 25 Mbps/ 3 Mbps service is available, 28 percent in rural areas and 30 percent in urban areas.)

[6] *See Connect America Fund et al*,. WC Docket Nos. 10-90 et al., Report and Order, 29 FCC Rcd 15744, 15655, para. 29 (2014) ("We encourage parties receiving ten years of support through the Phase II competitive bidding process to deploy future-proof networks that are capable of meeting future demand.")

[7] *See e.g*. Todd Ogasawara, *Comcast begins rolling out DOCSIS 31.- based gigabit home Internet*, ExtremeTech (Dec. 29, 2015), http://www.extremetech.com/extreme/220025-comcast-begins-rolling-out-docsis-3-1-based-gigabit-home-internet (last viewed on March 8, 2016).

[8] ViaSat Annual Report, Letter to Shareholders, p. 4. *Available at* http://files.shareholder.com/downloads/VSAT/1165864798x0x842449/D34054DA-5DC6-4B52-8697-8EF0A9211380/Annual_Report_2015_033_Web.pdf (last viewed on March 3, 2016) ("[O]nce a satellite is designed and built there is nothing that can be done to turn a 1 Gbps satellite into even a 7 Gbps satellite, let alone a 100 Gbps satellite") ((last viewed on March 3, 2016).

[9] The fundamental obligation for CAF II recipients is not compromised. The Letter of Credit obligation ensures that CAF II funds can be recovered from services providers that fail to extend service to all high cost locations within census blocks recipients have committed to serve.

[10] *See Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870 (2014). CAF II broadband service obligations and deployment obligations would not be relaxed. The Letter of Credit exists so that USF resources are not depleted in the event a winning bidder does not meet its CAF II service and buildout obligations.

more capable of supporting mobile broadband in rural areas.[11] It is far better that funding for the universal service programs be mutually supportive, rather than managed in separate silos.

If there are any questions concerning this matter, please contact the undersigned.

Respectfully,

Brett Kilbourne
Utilities Technology Council

Jack Richards (for Martha Duggan)

Martha A. Duggan
National Rural Electric Cooperative Association

Cc: FCC Participants

[11] See *2016 Broadband Progress Report*, paras. 20-44 (Fixed and mobile broadband have distinct characteristics and capabilities and serve different needs; and consumers require access to both services).