

**BEFORE THE
UNITED STATES DEPARTMENT OF COMMERCE
WASHINGTON, DC**

In the matter of)
)
Broadband e-Connectivity Pilot Program) RUS-18-TELECOM-0004
)
)

To: The USDA, Rural Utilities Service

COMMENTS OF THE UTILITIES TECHNOLOGY COUNCIL

The Utilities Technology Council (“UTC”) hereby submits its comments in response to the Notice of Inquiry and Request for Comments by the US Department of Agriculture Rural Utilities Service (“RUS”).¹ UTC supports implementing the e-Connectivity Pilot program in a way that will provide funding for the deployment of robust broadband networks with sufficient capacity to deliver faster speeds and lower latency (i.e. high quality) services to unserved and underserved areas. This will in turn drive economic development as well as improve the quality of life for people in rural America, including better access to health care, distance learning and education overall.

UTC believes that rural America should not be left behind with marginal broadband services. Indeed, many of our rural utility members are supplying broadband service to their customers in locations unserved by private telecommunications providers. The quality and cost of broadband service in rural areas should be reasonably comparable to the quality and cost of broadband in urban areas. In that regard, UTC supports including affordability as a factor in determining sufficient access to broadband service for purposes of the e-Connectivity Pilot program, as described more fully below. In addition, UTC also supports factoring for capacity along with speed because it does little good to require high speeds without

¹ Broadband e-Connectivity Pilot Program, Notice of Inquiry and Request for Comments, 83 Fed. Reg. 35609 (2018)(hereinafter “NOI”).

also requiring high capacity as described more fully below. On a related matter, UTC supports factoring for scalability when determining sufficient access to broadband. It would be a waste of the RUS funding to subsidize projects that are poor investments and are quickly subject to technology obsolescence because they are not scalable. In sum, areas that do not receive sufficient service in terms of quality and affordability should be eligible to receive funding under the e-Connectivity Pilot program and RUS should maximize the effectiveness of its investments to provide funding for technologies that are scalable to be able to meet increasing consumer demand for additional capacity at affordable prices.

Utilities that have deployed broadband networks to provide broadband services in rural America report very high consumer adoption rates in some areas. UTC believes that consumer adoption is in response to the low prices and high quality of the services that utilities are providing. Simply put, consumers will buy broadband that provides high quality service at low prices. Conversely, UTC submits that consumer adoption rates tend to be lower in areas where the price of service is high and the quality of service is low. Not surprisingly, these areas tend to be where there are fewer than three broadband service providers. It is no secret that consumer choice and competition tend to constrain price and improve the quality of broadband services.² In that regard, UTC supports funding for broadband projects in areas that are underserved, as well as areas that are unserved. Therefore, the RUS e-Connectivity Pilot program should fund projects in areas where there is only one provider exists, and the quality of this provider's service is poor or the price of service is unaffordable.

I. Introduction and Background

UTC is the international trade association for the telecommunications and information technology interests of electric, gas and water utilities and other critical infrastructure industries. UTC's members include all types of utilities ranging from large investor-owned utilities that may serve millions of

² Robert Seamans, *Trump's Focus On Rural Broadband Should Include Community-Owned Networks*, Forbes (Jan. 9, 2018) available at http://www.ppic.org/content/pubs/report/R_110JKR.pdf. (citing studies linking economic growth and broadband and concluding that removing barriers to broadband competition would promote economic growth).

customers across multi-state service territories to smaller cooperatively-organized and public power utilities that may serve only a few thousand customers in remote areas or isolated communities. All UTC members own, maintain and operate extensive private internal communications systems that they use to ensure the safe, reliable and secure delivery of essential electric, gas and water services. Some utilities also provide commercial communications services on either a wholesale or retail basis. Many of these utilities have deployed fiber networks to provide broadband services to areas in rural America that otherwise lack access to broadband. Some of these are currently borrowers from RUS. As such, UTC and its members have a direct and substantial interest in the NOI and are pleased to provide the following comments.

II. Sufficient Access to Broadband

The enabling provisions of the e-Connectivity Pilot program, Section 779 of the Consolidated Appropriations Act of 2018 (Pub. L. 115–141), provide that 90 percent of households served by projects funded under the pilot program must be in rural areas without sufficient access to broadband, which is defined as 10/1 Mbps.³ It also requires that the term “sufficient access” should be reevaluated and redetermined as necessary on an annual basis by the Secretary of Agriculture. In the NOI, RUS requests comment on what types of technologies and services should be defined as “sufficient access” particularly regarding transmission capacity required for economic development and speed and latency, especially in peak usage hours, to ensure rural premises have access to coverage similar to that offered in urban areas.⁴ RUS also invites comment on whether affordability of service should be included in evaluating whether an area already has “sufficient access” and how to benchmark affordability of internet services. Finally, RUS invites comments on other elements that RUS should consider when defining sufficient access.⁵

³ Consolidated Appropriations Act of 2018, §779 (Pub. L. 115–141)(2018).

⁴ NOI, 83 Fed. Reg at 35609.

⁵ *Id.*

At the outset, UTC believes that Section 779 should be read as a floor and not a ceiling for providing “sufficient access” to broadband. Moreover, it is important to note that Section 779 only specifies the parameters for eligibility in terms of the areas that would be served by the project, requiring that 90 percent of homes in the areas to be served lack access to 10/1 Mbps speeds. Perhaps most importantly, Section 779 explicitly requires the Secretary of Agriculture to reevaluate the definition of “sufficient access” to broadband as necessary on an annual basis. Section 779 does not set limits on the speed of the services that should be offered by the projects that are funded, nor does it provide criteria to prioritize awarding funding for projects under the program. Moreover, the speed benchmark of 10/1 Mbps is not set in stone.

In other words, RUS is free to develop its own set of parameters for the technologies and services that are funded under the program. In addition, it may periodically reevaluate these parameters – including eligibility for the projects and the areas to be served -- and adjust them accordingly. As such, RUS may adopt a variety of factors, such as speed, latency, affordability, capacity and scalability, for determining whether and to what extent it should award funding under the e-Connectivity Pilot program and it may adjust the criteria as it reevaluates them.⁶

UTC believes that 10/1 Mbps represents a relatively slow speed by today’s standard for broadband, and that 25/3 Mbps should serve as the minimum standard for “sufficient access” for purposes of the e-Connectivity Pilot program. In addition to speed, the RUS should also factor capacity as part of the definition of sufficient access, such that networks should have sufficient capacity so that consumers are allowed a minimum of 150 GB of data per month (or a usage allowance that reflects the average usage of a majority of fixed broadband customers in the country, whichever is higher). Latency should be 100

⁶ See Jonathan Chambers, *Dear Rural Utilities Service: How to Prove a Negative, or Why the National Broadband Maps stink and what to do about it (Part 1)* (Aug. 23, 2018) visited at <http://www.conexon.us/1/dear-rural-utilities-service-how-to-prove-a-negative-or-why-the-national-broadband-maps-stink-and-what-to-do-about-it-part-1/>. See also Jonathan Chambers, *Dear RUS: How to Prove a Negative (Part 2)* (Aug. 23, 2018) visited at <http://www.conexon.us/1/dear-rus-how-to-prove-a-negative-part-2/>.

milliseconds (ms) or less. Finally, affordability should be factored so that the cost of service in rural areas is reasonably comparable to the cost of similar services that are available in urban areas.

These criteria are consistent with those used by the FCC when it established its rules for the Connect America Fund Phase II reverse auction.⁷ There, the FCC established four performance tiers: minimum (10/1 Mbps and 150 GB data allowance), baseline (25/3 Mbps and 150 GB or the average usage of the majority of the country, whichever is higher), above-baseline (100/10 Mbps and unlimited data allowance), and gigabit (1 Gbps/500 Mbps and unlimited data allowance). The Commission also established a standard of 100 ms for low latency networks, which would apply across all of the performance tiers. Finally, the Commission has established benchmarks for the baseline cost of broadband services in rural areas, which are based upon the average price of broadband services that are available in urban areas -- such that the cost and quality of broadband services in rural and urban areas must be reasonably comparable.⁸ It is important to note that the baseline service tier was set based on the median consumer speeds in 2015.⁹ It is likely that the median consumer speeds today are higher, and therefore that RUS should consider adjusting its definition of sufficient access to broadband accordingly upwards (e.g. 50 Mbps) to reflect increasing consumer expectations in terms of download and upload speeds.¹⁰

⁷ Connect America Fund, Report and Order and Further Notice of Proposed Rulemaking, WC Docket No. 10-90, FCC 16-64 (May 26, 2016).

⁸ This is consistent with Section 254 of the Communications Act, which requires the Commission to ensure that the cost of providing telecommunications services in rural areas shall be reasonably comparable to the cost and quality of services in urban areas.

⁹ *Id.* at ¶24, n. 51 (explaining that the baseline performance tier was based upon Form 477 data as of June 30, 2015, which indicated that the median consumer download speed was 25 Mbps and the median consumer upload speed was 4 Mbps.) *See also* Federal Communications Commission, *Broadband Deployment Data from FCC Form 477*, <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477> (published June 2015 FCC Form 477 data).

¹⁰ *Id.* at ¶14, n. 38. (observing that “Form 477 data (as of December 31, 2014) suggest that 277.3 million Americans (86 percent) have access to fixed 50 Mbps download broadband service or higher and 63 percent of these 277.3 million Americans reside in urban areas. *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*, GN Docket No. 15-191, 2016 Broadband Progress Report, 31 FCC Rcd 699, 711 n.85 (2016). *See also Id.* stating that “[t]he Report also

A. High capacity and low latency networks will promote economic development.

UTC supports the NOI and believes that RUS is right to be inviting comment on the broadband technologies that will promote economic development, as well as to consider the affordability of the service in determining whether a project would provide “sufficient access” to broadband in rural areas. In that regard, UTC suggests that RUS adopt four criteria: speed/latency, capacity, affordability and scalability. Projects that provide speeds faster than 10/1 Mbps and that have capacity and scalability to meet increasing demands are not only permitted to be funded but should be prioritized because they will promote economic development and provide other public interest benefits. In addition, they represent a better investment of the funding that has been made available for the pilot program.

Higher speeds, greater capacity and lower latency all contribute towards the potential for economic development, compared to technologies that lack these capabilities.¹¹ All other things being equal, the more robust the broadband network the more likely it is that it will attract investment and promote economic development in rural communities.¹² Broadband networks that are funded under the e-Connectivity Pilot program should be sufficiently robust to support the applications that are driving the internet today: streaming video, industrial internet of things (IIOT), small office/home office/telecommuting, and telemedicine/remote health care.¹³ In addition to the increase in high-

found that, “Residential fixed broadband providers now offer service tiers of up to 1 Gbps in certain markets, with even faster services currently in development. Even outside these areas, download speed offerings by fixed terrestrial providers of 50 Mbps or more are common in urban and suburban markets. . . . The high-speed cable and fiber services that make up the majority of the fixed broadband market generally offer low latency, low packet loss, and consistent speeds, even during peak usage times. Further, these services are also high in capacity, meaning that they can handle more traffic without becoming congested.”)

¹¹ See e.g. Kate Murphy, *For the Tech-Savvy With a Need for Speed, a Limited Choice of Towns With Fiber*, The New York Times, April 2, 2014. (describing how businesses moved to rural areas)

¹² Matt McQuade, *The Importance of Broadband To Economic Development*, Site Selection Magazine (Sep. 2011), visited at <http://www.siteselection.com/issues/2011/sep/sas-optical-infrastructure.cfm>.

¹³ Jed Kolko, *Does Broadband Boost Local Economic Development?* Public Policy Institute of California at 26 (2010), visited at http://www.ppic.org/content/pubs/report/R_110JKR.pdf. (finding that access to broadband improves employment opportunities, and that access to low-cost, broadband capable of supporting high quality video could help to drive the growth of telecommuting employment opportunities.)

bandwidth applications, there is also an increase in the number of connected devices in the home, which will also require broadband projects to be capable of supporting increasing bandwidth demands.¹⁴

Clearly, investments in marginal technologies without scalability or that have high levels of latency represent poor investments that will discourage economic growth. Consumers do not want to wait forever to download a file and they need low latency to support real-time applications, such as VoIP and interactive gaming. Moreover, consumers do not want usage limits/data caps and overage charges, which continue to plague rural America and which are emblematic of networks that have limited bandwidth and capacity and higher latency.¹⁵

B. Affordability should be included in determining sufficient access to broadband.

The RUS should “ensure rural premises have access to coverage similar to that offered in urban areas,”¹⁶ and it should reject the myth that somehow rural Americans don’t want or need access to broadband services that are reasonably comparable in cost and quality to the services that are typically available in urban areas. On that point, the two criteria are not mutually exclusive and the RUS should not buy into a false dichotomy. Quality of service doesn’t have to come at the cost of affordability; it is possible to have both high quality and low cost of service.

¹⁴ Steve Smith, *Households have 10 connected devices now, will rise to 50 by 2020*, ETCIO (Aug. 19, 2016), visited at <https://cio.economictimes.indiatimes.com/news/internet-of-things/households-have-10-connected-devices-now-will-rise-to-50-by-2020/53765773>. See also Sandvine Report: *North American Homes Average Seven Active Connected Devices*, visited at <https://www.sandvine.com/pr/2016/8/24/sandvine-report-north-american-homes-average-seven-active-connected-devices.html> (stating that “The average household now has over seven active devices in use each day, with 6% of households having more than 15 active devices”).

¹⁵ Thomas Gryta, *Broadband Data Caps Pressure ‘Cord Cutters’*, Wall Street Journal (Apr. 21, 2016) visited at <https://www.wsj.com/articles/broadband-data-caps-pressure-cord-cutters-1461257846>. See also Bill Snyder, CIO from IDG, *What big ISPs don’t want you to know about data caps* (May 27, 2016) visited at <http://www.cio.com/article/3075975/internet-service-providers/what-big-isps-dont-want-you-to-know-about-datacaps.html>. See also Michael Mingos, *Exploring the Relationship between Broadband and Economic Growth*, World Bank, Jan. 2015, available at <http://pubdocs.worldbank.org/en/391452529895999/WDR16-BP-Exploring-the-Relationship-between-Broadband-and-Economic-Growth-Mingos.pdf>.

¹⁶ NOI, 83 Fed. Reg. at 35609.

Many utilities are deploying fiber to the home networks and are providing a variety of service packages up to gigabit speeds at prices that are less than \$100/month. The reason that so many utilities deploying future-proof networks, such a fiber to the home, is that the incremental costs of deploying additional fibers or upgrading the electronics to improve capacity are marginal compared to the construction costs of deploying the fiber and/or other equipment. Moreover, utilities recognized that it was a better investment to deploy networks that were scalable and could keep pace with increasing consumer demands, instead of deploying networks that would become quickly obsolete and couldn't be upgraded without significant additional investment.

With that as backdrop, RUS should include affordability into its determination of sufficient access. The reality is consumers in rural areas will buy broadband that is reasonably affordable and comparable in quality to the services that are available in urban areas. Let that be RUS's guide for benchmarking affordability. Certainly, utilities are proving that where consumers are offered high quality services at prices that are less than \$100/month, consumers will buy broadband. Set that as the bar and challenge other providers to match that in terms of affordability. The RUS shouldn't settle for marginal services that are not affordable. That approach has been tried and it has not succeeded, thus leading to the myth that rural America doesn't want broadband.

Conclusion

For all of these reasons, UTC supports the NOI and urges RUS to adopt rules that will fund the deployment of robust, reliable, and affordable broadband networks and services, which will in turn promote economic growth in rural America. Utilities are demonstrating that these networks can be cost-effectively deployed and the high adoption rates in some of the areas where they are deploying future networks is validating that rural America will buy broadband where it is available, reliable and affordable. UTC thanks RUS for the opportunity to comment on the NOI and looks forward to working with RUS as it continues to implement the e-Connectivity Pilot program.

Respectfully,

Utilities Technology Council

ss _____
Brett Kilbourne
Vice President Policy and General Counsel
Utilities Technology Council
1129 20th Street NW
Suite 350
Washington, DC 20036
202-872-0030

September 10, 2018