



September 10, 2018

Michele Brooks
Rural Development Innovation Center
Regulations Team Lead
U.S. Department of Agriculture
1400 Independence Ave. SW, Stop 1522, Room 1562
Washington, DC 20250

In the matter of e-Connectivity Pilot
Docket No. RUS-18-TELECOM-0004

Dear Ms. Brooks:

American Pistachio Growers (APG) was founded in 1989 by visionary pistachio farmers who recognized the benefits of banding together to strengthen their influence. Today, APG is the collective voice of more than 800 members across California, New Mexico and Arizona and the only non-profit voluntary trade association for the pistachio industry. Governed by a member elected board of directors, APG is sustained entirely by pistachio growers and member processors who share the belief of collectively advancing the American pistachio industry through research, promotion, advocacy and programs.

With a trade voice representing a \$1.5 billion-dollar industry, U.S. pistachios growers are estimated to harvest between 800 – 950 million pounds of pistachios this year and are expected to produce 1 billion pounds within the next couple of years.

Importance of Rural Broadband

Success of rural areas depends on two key drivers: (1) broad based productivity growth in the rural economy, and (2) the connectivity of rural people to each other, to urban areas, and to the rest of the world.¹ Unfortunately, rural communities in America are grossly underserved by broadband internet, consistently underperforming urban networks, both in performance and

¹ USDA Agriculture and Rural Prosperity Task Force & Secretary Sonny Perdue, Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity, p. 9. (“USDA Report”)

quality, by approximately 1/3.² Data and trend lines show that this has been the case for years, with little improvement.³

Lack of broadband prevents modernization and resulting growth – “E-Connectivity for rural America is essential for ensuring America’s economic competitiveness and enabling all Americans to be plugged in to a world of opportunity.”⁴ Connectivity is especially vital for agriculture to increase farm productivity to feed the world.⁵

Connectivity can also address the gap in health services in rural areas.⁶ A June 2018 survey by the California Emerging Technology Fund (CETF) found that 45% of respondents would utilize broadband to communicate with a doctor if it was available. The same survey found that 48% of respondents would utilize broadband to assist with their children’s education.⁷ By increasing connectivity, and thus educational opportunities in these communities, the entire community will benefit. A high rate of young adults, the future workforce and innovators in these communities, are leaving rural areas due to the lack of connectivity.⁸

I. Best options to verify speeds of broadband service provided to rural households.

The current FCC Broadband Map is inaccurate and inadequate.⁹ CalSPEED, developed by the California Public Utilities Commission (CPUC), provides a strong example of how to achieve better results. CalSPEED is an open source, non-proprietary, network performance measurement tool and methodology created for the CPUC, funded originally via a grant from the National Telecommunications and Information Administration (NTIA).¹⁰

“Unlike many speed tests that offer just a horse race between carriers, CalSPEED tries to understand the quality of the mobile user broadband experience.”¹¹ CalSPEED has been used in California for five years with eleven rounds of measurement over the entire state, collecting over 30 million measurements.¹²

While there may be methods other than CalSPEED that can be affectively utilized to measure broadband e-Connectivity speeds, it is important to note that whatever methods are adopted be more comprehensive and accurate than the current FCC Broadband Map.

² Ken Biba, CalSPEED: California Mobile Broadband - An Assessment - Spring 2017, p. 4. (“CalSPEED”)

³ CalSPEED, p. 4.

⁴ USDA Report, p. 17.

⁵ USDA Report, p. 18.

⁶ USDA Report, p. 19.

⁷ Davis Research, LLC, Summary of the Findings from the 2018 CETF Follow-up Survey for the California Emerging Technology Fund, June 2018, p. 4. (“Survey”)

⁸ USDA Report, p. 8.

⁹ Statement of Commissioner Jessica Rosenworce Re: Demonstration of the New National Broadband Map, February 2, 2018.

¹⁰ CalSPEED, p. 3.

¹¹ CalSPEED, p. 3.

¹² CalSPEED, p. 3.

II. Best leading indicators of the potential project benefits for rural industries such as agriculture, manufacturing, e-commerce, transportation, health care and education, using readily available public data.

Much of the world's food is grown in rural areas. The Food and Agriculture Organization of the United Nations predicts that food production must increase by 70% by 2050 in order to feed the predicted world population.¹³ Because of this, precision agriculture technologies that optimize input application using variable rate technology (VRT) are playing an increasing role in farm production.¹⁴ VRT enables farmers to increase crop yields, while reducing water storage and minimizing the need for fertilizer, chemicals and pesticides.¹⁵ This is vital when government regulation over water, fertilizer, chemicals and pesticides is threatening the ability for family farms to continue to operate.

In order for VRT—and thus the future of agriculture—to be successful, a reliable and strong broadband network is needed. By tapping into broadband wireless networks and embedding information technology (IT) devices in farm machinery such as tractors and harvesters, VRT allows farmers to use “telematics” to optimize machine use for field preparation, precision planting, water optimization, harvesting and overall production efficiency.¹⁶

Additionally, broadband enhances farm competitiveness by providing an online platform to monitor real-time market prices and trends, purchase supplies, increase their customer base, and market products locally, regionally, nationally and globally.¹⁷

III. Ways of evaluating a rural household's “sufficient access” to broadband e-Connectivity at speeds of 10 Mbps downstream and 1 Mbps upstream, and how broadband service affordability should be factored in.

a. **Ways of evaluating**

For agriculture, technology and broadband represents the future.¹⁸ With the increased importance of precision agriculture and VRT to the local farmer, it is also important that the broadband they have access to be sufficient to allow those technologies to be affective.

We encourage USDA to adopt a higher standard to define “sufficient access” of 25 Mbps downstream and 3 Mbps upstream. Agriculture advocates have stated that the 10 Mbps downstream and 1 Mbps upstream is inadequate, similar to trying to travel 25 mph down the highway.¹⁹ While 25 Mbps/3 Mbps is still slower than some service in metropolitan areas, that

¹³ Broadband and Precision Agriculture, *Broadband USA, Vol. 3, Issue 6*, June 2018, p. 1. (“BroadbandUSA”)

¹⁴ USDA Report, p. 31.

¹⁵ USDA Report, p. 31.

¹⁶ BroadbandUSA, p. 1.

¹⁷ BroadbandUSA, p. 1.

¹⁸ USDA Report, p. 31.

¹⁹ Trevor McDonald, *For Farmers and Ranchers, Rural Internet Is More Crucial than Ever*, Hannibal Courier-Post, March 19, 2018. (“McDonald”)

speed is still not available across all rural areas.²⁰ A 2016 Federal Communications Commission (FCC) report found that 39% of rural Americans lack access to 25 Mbps/3 Mbps.²¹

b. Factoring in affordability

The availability of broadband in rural areas does no good if it is too unaffordable for the population to take advantage of. In the CETF survey, 82% of respondents stated that the cost being “too expensive” was a factor in not having broadband access; 54% of those respondents listed cost as the main reason for not having broadband.²²

One way to mitigate the effect cost has is to ensure the public is aware of current ways to lower that cost. There is generally low public awareness of the special discount program that internet providers make available to low-income households.²³ In the CETF survey, only 27% said they had seen or heard about such programs, and only 18% said they had contacted an internet provider to inquire about the program.²⁴

Conclusion

Broadband access in rural America is vital to giving these communities the same opportunities for success as the more broadband affluent urban areas. Many of these communities are dependent on agriculture as the lifeblood of their economies, and proper broadband access allows the agriculture industry to adapt to new technology and be successful for future generations.

APG advocates to raise the “sufficient access” to broadband standard to 25 Mbps downstream and 3Mbps upstream, and encourages USDA to develop an independent method to verify that speeds are actually reflective of this standard. APG appreciates the efforts of the Rural Utility Service to bring broadband service to the rural communities who have gone without for so long.

If APG can be of any further assistance to this process, please do not hesitate to contact us at (559) 475-0435.

Sincerely,



RICHARD MATOIAN
Executive Director

²⁰ McDonald.

²¹ Federal Communications Commission, *2016 Broadband Progress Report*, January 29, 2016, p. 3. (“FCC Report”)

²² Survey, p. 4.

²³ Survey, p. 12.

²⁴ Survey, p. 12.