

September 8, 2014

Secretary Marlene H. Dortch  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

**RE: Reply Comments for Proposed Rules: WC Docket No. 10-90, WT Docket No. 10-208, WC Docket No. 14-58, WC Docket No. 07-135, CC Docket No. 01-92**

The American Farm Bureau Federation (Farm Bureau) supports the Federal Communications Commission's (FCC) creation of the Connect America Fund (CAF) to preserve and advance voice and robust broadband services, both fixed and mobile, in high-cost areas of the nation that the marketplace would not otherwise service. Farm Bureau represents more than 6 million families who live and work in rural America.

Current and future generations of rural Americans will be left behind their fellow citizens if they are unable to access affordable broadband services. In rural America, broadband services increase economic development through new business opportunities; improve health care and educational services; allow the use of precision agriculture equipment; enhance public safety; and allow for greater participation in government.

Farm Bureau supports the FCC's proposal to increase the minimum broadband speed to 10 Mbps downstream and increase the upstream speed from 1 Mbps. In addition to the minimum speed, the FCC must ensure the broadband infrastructure supported by the CAF has the ability to increase that minimum speed in future years. The digital divide will continue if the proper infrastructure is not able to meet the needs of the future. If the FCC does not address broadband infrastructure, the digital divide will continue and rural Americans will be negatively impacted.

The Small Business Administration (SBA) conducted a study in 2010 that evaluated the methods used by small businesses to access broadband services and the impact of broadband on small businesses. The study found that broadband service is vital for small businesses in "achieving strategic goals, improving competitiveness and efficiency, reaching customers, and interacting with vendors."<sup>1</sup> Farmers and ranchers in rural America rely on broadband access to manage and operate successful businesses, just as businesses do in urban America. Access to broadband allows farmers and ranchers to utilize precision agriculture equipment, follow commodity markets, communicate with their customers and gain access to new markets around the world.

Precision agriculture relies on broadband services so farmers and ranchers can manage efficient, economical and environmentally conscious businesses. Farmers use precision agriculture for accurate mapping of field boundaries, roads and irrigation systems; for precision planting; and for targeting the application of fertilizer and chemicals that combat weeds and crop diseases.

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<sup>1</sup> U.S. Small Business Administration, *The Impact of Broadband Speed and Price on Small Business*. 2010 Nov. <http://archive.sba.gov/advo/research/rs373tot.pdf>.

Precision agriculture also allows farmers to work despite low-visibility field conditions such as rain, dust, fog and darkness. As more precision equipment becomes available, farmers and ranchers cannot take full advantage of that equipment if they do not have access to broadband.

John Deere's comments to the FCC illustrate the importance of accessible mobile broadband for farmers and ranchers who utilize precision agricultural equipment. Deere's JDLINK data service, for example, currently relies on the cellular telephone network to transmit telemetric machine operation data. The lack of coverage needed for these solutions to transmit telemetric data from the machines is already a concern, but the shortfall in coverage will only become more problematic as data volumes increase. Due to significant gaps in cell coverage in rural areas where farm machines operate, today JDLINK data transmissions have only a 70 percent successful call completion rate. Absent significant improvements in cell coverage in cropland areas, Deere expects that this figure will drop to about 50 percent in two to three years as agricultural demand for broadband services increases. Farm Bureau supports John Deere's request for more wireless antenna towers in rural America, all of which must be connected by fiber backhaul to the broadband network provider.

Farm Bureau supports John Deere's comments for the FCC to consider enhancing the definition of unserved and underserved areas to include the USDA definition of "cropland."<sup>2</sup> This inclusion would allow machine-to-machine mobile broadband transmissions by agricultural equipment in the field and associated operators' mobile devices to be counted in the justification for broadband expansion. Machine-to-machine communication is a critical tool for precision agriculture equipment. It should also be recognized that these machines-with-modems also involve a driver who is communicating separately by cell phone and often using a tablet in the equipment cab.

According to the SBA study, the lack of competition within the Internet market limits Internet options available for small businesses to find the best package of speed and price.<sup>3</sup> In addition, 48 percent of rural small businesses are not satisfied with the speed of their Internet connection.<sup>4</sup> Farmers, ranchers and other small businesses need competition within the Internet market to allow them to access the most cost-effective broadband option. The FCC needs to increase the competition within the Internet market by allowing new entities, such as electric cooperatives, to participate in the CAF.

Many farmers and ranchers conduct their business operations from their homes. Access to broadband service in rural America today is the equivalent to access to electricity in rural America in the 1930s, when it was largely unavailable. According to the National Rural Electric Cooperative Association, nine out of 10 rural homes were without electric service in the mid-1930s.<sup>5</sup> The U.S. Department of Agriculture reports a total of 67 percent of U.S. farms had Internet service in 2013, compared with 62 percent in 2011.<sup>6</sup> This number is inflated because it

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<sup>2</sup> USDA definition <http://www.ers.usda.gov/data-products/major-land-uses/glossary.aspx#croplandforcrops>.

<sup>3</sup> U.S. Small Business Administration, <http://archive.sba.gov/advo/research/rs373tot.pdf>

<sup>4</sup> Ibid.

<sup>5</sup> National Rural Electric Cooperative Association, "History of Electric Co-ops", 2014, <http://www.nreca.coop/about-electric-cooperatives/history-of-electric-co-ops/>.

<sup>6</sup> U.S. Department of Agriculture, *Farm Computer Usage and Ownership*, National Agricultural Statistics Service. 2013 Aug. <http://usda.mannlib.cornell.edu/usda/current/FarmComp/FarmComp-08-20-2013.pdf>.

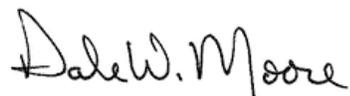
includes dial-up as an Internet service. The report states that 5 percent of farms used dial-up to access the Internet in 2013. No individual or business owner should be connecting to the Internet via dial-up in today's global economy. Farmers or ranchers relying on dial-up are not better off than the 33 percent of farmers and ranchers with no Internet access. They both are victims of the digital divide while trying to manage a business.

As government agencies increase the amount of information they disseminate and collect, affordable broadband is a necessary tool for farmers and ranchers. Farmers and ranchers without access to affordable broadband services might have greater difficulty complying with government regulations, taking advantage of government services or gaining market information. Therefore, affordable home broadband access is vital to keeping American agriculture competitive in the world marketplace.

America's farmers and ranchers need viable rural communities to supply the services needed to support their families and agricultural operations. To thrive, rural areas need access to health care, government services and educational and business opportunities. For many rural communities, access can only be gained by using broadband services and sophisticated technologies that require high-speed connections. Rural business owners need access to new markets and to communicate with their customers. Rural health care providers need access to health information technology. Rural students need access to educational resources and continuing education opportunities.

Farm Bureau supports the creation of the CAF, increasing downstream and upstream speeds, enhancing the definition of unserved and underserved areas to include the USDA definition of "cropland,"<sup>7</sup> and allowing new entities to participate in the CAF. Farm Bureau will continue working with the FCC in its commitment to revitalize our rural communities by expanding broadband access to rural America at an affordable rate.

Sincerely,



Dale Moore  
Executive Director  
Public Policy

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<sup>7</sup> USDA definition, <http://www.ers.usda.gov/data-products/major-land-uses/glossary.aspx#croplandforcrops>