



ASSOCIATION OF
EQUIPMENT MANUFACTURERS

AGRICULTURE
CONSTRUCTION
FORESTRY
MINING
UTILITY

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554
September 8, 2014**

In the Matter of)	
)	
Connect America Fund)	WC Docket No 10-90
)	
Universal Service Reform --Mobility Fund)	WT Docket No. 10-208
)	
ETC Annual Reports and Certifications)	WC Docket No. 14-58
)	
Establishing Just and Reasonable Rates for Local Exchange Carriers)	WC Docket No. 07-135
)	
Developing an Unified Intercarrier Compensation Regime)	CC Docket 01-92
)	

REPLY COMMENTS OF THE ASSOCIATION OF EQUIPMENT MANUFACTURERS

The Association of Equipment Manufacturers (AEM) appreciates the opportunity to submit reply comment in response to the Further Notice of Proposed Rulemaking released on June 10, 2014, in the above captioned dockets.¹

AEM is the U.S.-based international trade group serving the off-road equipment manufacturing industry. AEM members number more than 900 companies that manufacture equipment, products and services used worldwide in the agriculture, construction, forestry, mining and utility fields. Today, several categories of equipment produced by our members rely on access to a wireless signal in order to be fully utilized.

¹ *Connect America Fund; A National Broadband Plan for Our Future; ETC Annual Reports and Certifications; Establishing Just and Reasonable Rates for Local Exchange Carriers; Universal Service Reform – Mobility Fund; Developing a Unified Intercarrier Compensation Regime; WC Docket Nos. 10-90, 07-135, 14-58, WT Docket No. 10-208, CC Docket No. 01-92, Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking, FCC 14-54 (rel. June 10, 2014) (“CAF FNPRM”).*

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AEM strongly supports the Commission's efforts to provide targeted and effective funding to promote expanded broadband services in rural areas through the Connect America and Mobility funds. These efforts should aim to ensure that affordable, high speed broadband is made available to farmers and ranchers as well as the many rural communities that rely on those enterprises. With these goals in mind, AEM offers these reply comments on the proposals in this proceeding:

I. The Commission Should Consider the Unique Needs of the Agricultural Sector In its Review of Connect America Fund and Mobility Fund Rules

AEM joins in the statement of the American Farm Bureau Federation, representing more than 6 million families who live and work in rural America, that today's modern agricultural sector is increasingly reliant on affordable access to wireless broadband. The precision agricultural revolution promises to greatly increase the efficiency of the American farmer. The core of this wave of innovation is data and the interconnectedness of equipment. If farmers and ranchers are to be able to take full advantage of this bright future, we must expand the access to broadband in rural America. If we ignore this glaring need, we risk handicapping this critical industry that is coming under increasing pressure to feed, clothe and provide energy for a growing world. AEM urges the Commission to consider the specific needs of farmers and ranchers in implementing the proposed changes to the Connect America Fund and the Mobility funds.

II. The Comments Show Support for Increasing Minimum Speeds with Reasonable Precautions and Flexibility

The Comments showed support for increasing the benchmark speed for supported services provided that the rules incorporate reasonable precautions and flexibility.³ Rural communities, including farming and ranching enterprises, would benefit from access to high speed services meeting the proposed new benchmarks. However, the Commission should incorporate flexibility into its rules to reflect that in some areas it may not be realistic for a recipient to provide services meeting the new benchmarks but broadband services at reduced speeds could still offer significant improvements to rural users. AEM accordingly supports measures that would implement the new requirement only where a provider receives a "reasonable" request as well as measures that would enable appropriate transitions for providers such as implementing increased speed benchmarks over time.⁴ We believe rigid enforcement of the increased benchmark could deny some users from receiving substantially improved service even if not at speeds deemed comparable to that available in urban areas. To that end, AEM supports the proposal that would permit ETCs awarded support in the competitive bidding

Developing a Unified Intercarrier Compensation Regime; WC Docket Nos. 10-90, 07-135, 14-58, WT Docket No. 10-208, CC Docket No. 01-92, Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking, FCC 14-54 (rel. June 10, 2014) ("*CAF FNPRM*").

³ See NCTA at 28, UTC. Adtran (supporting increased downstream speeds); see, e.g., Midwest Cellular, Farm Bureau

⁴ FNPRM at para 142-45

process to offer an array of services including services that do not meet the revised benchmark speeds so long as one offering meets the necessary metrics.⁵ Furthermore, AEM agrees with the American Farm Bureau Federation that the rules will need to be flexible to reflect the need to increase speeds over time.⁶

III. Commission Rules Should Encourage a Wide Range of Entities to Participate and Enable a Flexible Technology Approach

The comments also showed agreement that the Commission's rules should encourage a broad range of entities to participate in the CAF, including rate-of-return carriers, utilities, and WISPs (wireless Internet Service providers).⁷ AEM agrees with the CTIA that mobile broadband providers should also be able to compete for CAF Phase II support.⁸ Similarly, other parties echoed that the Commission should not endeavor to dictate technology choices so long as recipients meet the required performance parameters regarding speed, latency, usage allowance and pricing.⁹

The recipient providers, working together with local interests, are in the best position to assess the needs of the targeted communities and the best combination of technologies -- whether wireline, wireless, fixed, mobile, terrestrial or satellite -- that can meet cost and operational demands. Inflexible Commission rules that mandate technology choices may compel providers to use technologies that are inappropriate or less than optimal to serve users with little countervailing public interest benefit. As long as a recipient-provider can deliver service to end users that meets the performance requirements, there is no public interest need to mandate specific technology choices.

IV. The Comments Reflect the Need for Continued Support for Mobile Services in Rural Communities.

AEM supports expansion of wireline facilities -- including for middle mile facilities -- to support broadband services to rural communities.¹⁰ However, it is also essential that the Commission take steps that will increase the amount of support available to facilitate deployment of wireless broadband services particularly in areas in which the market is not providing mobile services (3G or 4G) without government support.¹¹

⁵ FNPRM para 151

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⁷ See, e.g., Midwest Energy, Farm Bureau

⁸ See CTIA comments at 2. AEM also shares CTIA's view that the Commission should be careful to set performance standards in a way that spectrum-based providers are not effectively excluded. 3-4.

⁹ See, e.g., Adtran, CTIA, As well as the ability to tether connections to other devices and to use multiple devices at once using a single connection. See FNPRM at fn 338

¹⁰ See also Alaska Rural Coalition Comments at 24 ("Middle mile infrastructure is needed to deploy 4G LTE.")

¹¹ See, e.g., Cellular South.

A. Mobility Phase II Funds Should Be Made Available To Serve Croplands

With respect to mobile services, all proposals should be measured against the Commission's stated goal: to achieve universal availability of "mobile networks capable of delivering mobile broadband and voice service in areas where Americans live, work, or travel."¹² In the Commission's words, all Americans, including those in rural areas, should have "access to affordable technologies that will empower them to learn, work, create and innovate."¹³ While AEM agrees that mobile service coverage has expanded in rural areas in the past several years, there remains large and important areas with no access to 3G or 4G services.¹⁴

The Commission should update how it determines whether an area is or is not being served by mobile broadband service for the purpose of determining eligibility for support. Following recent rule revisions, the Mobility fund focuses on road miles, not just residential locations.¹⁵ This is a good first step and recognizes there are some users with more of a geographic-based need for mobile broadband coverage rather than population-based. Other examples of these geographic-based users are:

- i. Public safety (Local, State & FirstNet)
- ii. Transportation (smart cars & positive train control)
- iii. Utilities (oil & gas & electric & water)
- iv. Farmers and ranchers (telematics data)

While the road miles metric appropriately expands the Commission's consideration beyond residential user locations, it does not adequately cover significant areas of agricultural operations in which access to broadband services is increasingly important, including to support innovative machine-to-machine operations on the farm.¹⁶ For this reason, AEM has urged the Commission to examine "cropland" coverage in its determination of support. Given that agricultural operations are an important and often the most important economic driver in many rural areas, the Commission cannot fully achieve its stated goal to promote broadband deployment where people work and to empower innovation if the Commission's rules do not recognize the need for mobile broadband on cropland.

B. The Mobility Fund Should be Retained or Increased

The CTIA and CSpire argue in their comments that the Commission should maintain the Mobility Fund Phase II and even increase the fund to ensure that mobile

¹² USF/Transformation Order 26 FCC Rcd. At 17682, para 53. See FNPRM at para 235.

¹³

¹⁴ The Commission recognizes that current coverage estimates are likely overstated. See FNPRM at fn 436 see

¹⁵ See, e.g., CTIA.

¹⁶ The Commission notes that it will use data submitted on FCC Form 477 to determine where mobile broadband services exist today. However, that information is based on customer locations and as a result does not account for the broadband usage that is critical to agricultural operations taking place in cropland. See, e.g. CSpire.

service providers will continue to have access to funds that can support expanded mobile services in areas in which wireless broadband services would not otherwise be available.¹⁷ AEM agrees. We know from our customers there are large areas of rural America that continue to lack access to 4G or in some cases, any mobile service.¹⁸ AEM submits that there continues to be a need in rural areas for government support of the deployment of 4G or other mobile services. Accordingly, the Mobility Fund should not be reallocated to CAF Phase II where providers proposing mobile services will participate in only a fraction of the funds awarded.¹⁹ AEM is similarly concerned about the possibility of reallocating Mobility funds to the Remote Areas Fund. In fact, wireless services are rapidly becoming the technology of choice over fixed services for many consumers and innovative applications.²⁰ An increase - not a reduction - to the Mobility Fund may be warranted to address this growing demand.

AEM appreciates the opportunity to comment on this important issue. If we expect our rural communities to continue to provide the world with the food, fiber and energy it needs, then we must ensure these areas have full access to the developing information based economy. If you have any questions, please do not hesitate to contact Nick Tindall, AEM Director of Government Affairs at 202-898-9067 or ntindall@aem.org.

Sincerely,



Nick Yaksich
Vice President, Government and Industry Relations
Association of Equipment Manufacturers

¹⁷ See, e.g. CTIA. Cellular South.

¹⁸ See, e.g., Cellular South.6-9There are over 350 million acres of major cropland in the United States and as noted above, agriculture is driven more than ever by advanced farming technologies, of which broadband is a key enabler. The potential number of machines with modems working these 350 million acres of cropland should be counted when determining mobile coverage.

¹⁹ See FNPRM at paras 243-485. See CSpire at 5.

(“An accurate map would show that large portions of rural America lack access to mobile broadband service, and even larger portions lack access to 4G LTE service.”)

²⁰ In addition to the innovative use of broadband for machine to machine communications on croplands, mobile wireless technology is also becoming an essential platform for telemedicine, telehealth, and public safety. See CSpire comments at 2.