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To: bead@ntia.gov

Subject: Comments Regarding Proposed BEAD Alternative Broadband Technology Guidance

To whom it may concern:

Apologies for submitting these comments past the Sept 10th deadline.

I would like to raise several concerns from a subscriber perspective. I have experience with both fixed wireless and LEO satellite services, and I hope that these comments are relevant to your deliberations.

Fixed wireless service concerns:

Cell coverage, service levels, and technologies change frequently. Even a good speed test today does not ensure good service 6 months or a year from now. This is particularly troublesome in rural areas with little to no coverage and competition.

Verizon recently discontinued 4G LTE Home Internet service in the area where I live. When T-mobile and Sprint merged, 3G services were dropped and other tower changes eliminated service to many locations. Technologies and business priorities affect service and coverage with little consideration of the impact on subscribers.

Fixed Wireless services should be viewed as a short-term solution with no commitment. They should not be eligible for government funding programs.

Carriers may argue that they are willing to make long-term service commitments. Such commitments should be assessed very carefully. Carriers have often broken such commitments and/or appealed for forbearance. Examples include AT&T's recent efforts to abandon COLR and landline phone obligations, failure to provide universal broadband coverage in return for monopoly status, appeals for relief from RDOF commitments, etc.

Unlicensed and License-By-Rule technologies (for example CBRS):

The industry is very excited about expanding CBRS usage. Unfortunately early experience CBRS in the Central Coast area of California and ongoing experience with GHz DFS frequencies raises major concerns. Broadband services have been disrupted periodically due to military and other government priorities. The sudden and unplanned nature of these disruptions make it impossible to rely on such services. Broadband is no longer an optional technology. Many business and personal activities require reliable broadband and the need is growing. These technologies are not a suitable alternative broadband technology in coastal areas that are affected by DFS and DPA events. These technologies should therefore not be eligible for government funding programs in areas subject to priority disruption like DPA or DFS.

LEO Technologies:

Starlink has been a critical service for many rural residents over the past few years. Other LEO systems are under development and it will be great to have some competition. That said, there are issues:

1) Starlink rolls out firmware updates, often 1-2 times per month. These updates sometimes disrupt usage over several hours. While they often occur between 1am and 4am, the disruption can still be significant for some users.

2) Starlink changed the dish orientation in coastal areas in 2022. This change was made to increase system bandwidth. However it was disruptive to many users who have limited visibility to satellite paths. These changes were made without notice and without recourse. Some users had paid thousands of dollars to locate their dish in areas with few obstructions. Some had to reposition their dishes at additional expense to maintain service.

Satellite services are deployed and changed based on business needs in a similar vein to Fixed Wireless. Unlike cable or fiber, the provider does not make "BSL specific" investments. A decision that picks up more new subscribers than it loses is a good business decision. The residents who lose service often have little or no recourse.

These technologies should therefore not be eligible for government funding programs unless the providers make specific guarantees not to lower/remove service levels or coverage that affects existing subscribers. Any guarantees need to be reviewed regularly and enforced to ensure coverage and service levels.

Thank you for your consideration.

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