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To: bead@ntia.gov

Subject: Comments on Proposed BEAD Alternative Broadband Technology Guidance

Centranet, a subsidiary of Central Rural Electric Cooperative submits these comments in response to the NTIA's proposed guidance for BEAD program 'to inform the allocation of BEAD Program funds to projects utilizing an alternative technology that does not meet the BEAD Program's definition of Reliable Broadband Service, but otherwise satisfies the program's technical requirements.'

These guidelines are of concern to us as ill-prepared eligible entities may find the easy answer of Low Earth Orbit Satellite as more palatable regardless of the long term effects of such decisions. The long term effects of using unreliable technology such as LEO satellite or unlicensed Fixed Wireless are two folds:

1. Unreliable technologies can not scale in bandwidth like fiber can. Currently, we can deploy residential speeds of up to 50Gbps whereas Fixed Wireless struggles at 1Gbps and satellite can not go over a few hundred Mbps. Every location served by alternative technology will just become unserved again in the near future as unreliable can not scale as much and as quickly as fiber.
2. Latency will become a more important factor as low latency applications are released (VR, AR, XR, IOT etc.) and sub 7ms latencies will be needed to avoid cybersickness. LEO satellites can not provide such latencies owing to physics (constant speed of light and several hundred miles round trip)

Fiber builds must continue to be the top priority for BEAD funding. The premise must be that if a location is connected with an electrical service line, a fiber line can be deployed and maintained to that location for a reasonable cost. Eligible Entities must first examine all potential ways to award funds for fiber connectivity and ensure that for the limited number of locations that are not finding fiber providers, cost per passing is set at an extremely high rate to attract such fiber providers. Eligible entities must conduct due diligence with all fiber providers before pursuing alternative technologies and ensure that alternative technologies are a last resort for no more than 5% of their unserved and underserved locations and to only those that are 'off the grid'. Eligible entities must exhaust all avenues to provide fiber up to and including providing 100% of the cost to build fiber to such locations before turning to alternative technologies. Eligible Entities must give fiber providers the first right of refusal for location before considering alternative technologies. Eligible Entities must make the granularity of proposed service areas to as little as one locations to not artificially create service areas where fiber providers can not build. This is to say that if a fiber provider commits to build to a single location while discarding other locations in a service area, the eligible entity will fund them to build that.

NTIA should create rules associated with deployment of alternative technologies to ensure that fiber infrastructure can be brought as close to that location as possible even if the final

deployment is using alternative technologies.

Our fear is that this guidance from NTIA will give ill-prepared eligible entities carte blanche to use the easy answer of using LEO satellites to cover the maximum number of locations while discouraging fiber project. This could be done by artificially creating service areas that discourage fiber providers from building that entire area.

NTIA should also reconsider using LEO satellite as a technology that should be awarded BEAD sub-grants. In addition to the above mentioned reasons for bandwidth and latency, LEO Satellites will constrain those locations from receiving funds for fiber in the future and from having affordable options as LEO satellite will be much more expensive than terrestrial deployment.

We urge NTIA to reconsider its proposal and hold the line on not including unreliable broadband technologies such as LEOs in the BEAD Program; to the extent NTIA retains LEO satellite broadband on its list of acceptable Alternative Technologies for the BEAD Program, it should be viewed as the last available option for connecting a particular location as there is no planned funding to upgrade these locations to “reliable broadband” at a later date. An investment in Fiber is an investment in the future of America.

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