

Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Mike O’Rielly
445 12th St. SW
Washington, DC 20554

RE: Ex parte presentation in WC Docket No. 13-184

Dear Mr. Chairman and Commissioners:

The Quilt and the research and education networks (R&E Networks) respectfully provide the following *ex parte* comments on the upcoming decision on E-rate reform. The Quilt has been an active participant in the proceeding earlier this year by providing comments and engaging in several rounds of meetings. In addition, several of our members also provided additional comments to the FCC in the September round of additional comments in response to the Further Notice of Proposed Rulemaking.

The Quilt was pleased with several of the changes made in the July E-rate Modernization Order, especially the decisions to make more funding available for internal connections (Wi-Fi equipment) and to promote consortia. The Quilt has long pointed out that it is inefficient and ineffective to bring high-capacity broadband to the building if there is insufficient capacity within the classroom or library building. Now that the Commission has given greater priority to making funding available for Category 2 equipment inside the building, it is proper for the Commission to focus its next decision on how to incentivize the build-out of additional broadband capacity to the building.

Promoting Consortia:

The Quilt appreciates the FCC’s efforts to promote consortia. The R&E network members are living proof of the value of consortia. Our members specialize in bringing high-quality broadband to large groups of anchor institutions, including schools and libraries, in our respective states. As MOREnet (the Quilt member from Missouri) stated in its comments,

State Network consortium member benefits include collective purchasing power and usually E-rate program filings, as well as greater access to technology support, training, network security, defined network performance, fully dedicated Committed Information Rate (CIR), network management services, network support, Wi-Fi assessment and management, and

other services to support the network. These benefits impact each consortium member in varying degrees with some being more important than others to the individual member. The end result, however, is all consortium members gain financial and technological benefits from the consortium.¹

In the past, however, consortia filers often found that their applications were delayed months and even years. Some R&E Network members have encountered multi-year delays in receiving approvals; these delays have hampered their ability to provide service and have increased the cost of service as well. In these situations, the financial risk borne by consortium filers due to USAC processing inefficiencies will continue to be a significant barrier to more consortium applications, which is in direct conflict with the July order.

A modernized E-rate program should offer prioritized/preferential review of consortia applications as they are submitted, thereby encouraging more consortia filings and better supporting those that already file as consortia today. We appreciate that USAC, under the FCC's direction, has made some progress in speeding the approval of E-rate applications. But, unfortunately, delays still persist. Per our prior comments, there should be a team of reviewers within USAC dedicated to reviewing consortia applications with a targeted review timeframe not to exceed 120 days.

Another way to encourage greater use of consortia is for the Commission to increase the E-rate discount for certain consortia applications. For instance, the Commission should add an additional 5% to the discount for consortia applicants that either include a certain minimum percentage of schools and libraries in the state, or that are specifically designated by a state government agency. Increasing the discount, thereby reducing the applicants' match, would provide an additional financial incentive to schools and libraries to participate in consortia. Consortia applicants will help to simplify the administration of the E-rate program, and will also allow R&E networks and others to offer higher quality broadband connections to more schools and libraries. An additional 5% discount will also help to offset some of the other changes to the E-rate program (such as moving to a weighted average when calculating the discount) that might discourage certain parties from participating in consortia.

Service Quality Targets:

The Quilt appreciates that the FCC has identified specific bandwidth targets for schools and libraries. Such targets can be useful benchmarks for measuring progress. Having said that, we urge the Commission not to ignore the many other factors that determine the **quality** of the broadband connection. In our experience, the quality of the connection is much more important than the price or the specific bandwidth speed.

¹ Comments of the Missouri Research and Education Network Related to the E-rate 2.0 Further Notice of Proposed Rulemaking, filed September 15, 2014, p.4.

Schools and libraries need reliable, fully-committed connections in order to utilize learning applications. Not only is network uptime critical, but also symmetrical connections (same speed up/down), full committed information rates, low network latency (the amount of time required for a data packet to get from point A to point B) and jitter (variability in the timing of data packet arrival). These are all vital to supporting e-Learning initiatives such as distance learning, videoconferencing, and on-line testing, and they are important to consider when evaluating the value of broadband connection.

The FCC's rules and USAC training should encourage schools and libraries to become savvy technical buyers in the marketplace. The focus should be on delivered service performance from the start. Schools and libraries should have the flexibility to choose the best value based on sound network engineering practices and customer support. Network performance metrics should be incorporated into the network design, stipulated in procurement requests, written into contracts and measured periodically to ensure compliance.

This is another area where consortia, purchasing on behalf of a large number of schools and libraries, are able to leverage their technical expertise and aggregated buying to select the best broadband value and best support their institutions.

Changing the Definition of Rural:

The Quilt supports the change to the definition of rural previously filed by a large group of schools, libraries, SECA, NTCA, the SHLB Coalition, and several others that would allow areas below 25,000 to be considered rural. This change would restore the rural discount for many schools and libraries that lost the rural discount from the July E-rate Modernization Order. Changing the definition in this manner would make it easier for rural schools and libraries to obtain the high-bandwidth, high-quality broadband services that the FCC seeks to promote.

Rural Build-Out:

The Quilt also supports the idea that the E-rate program should encourage the build-out of higher-capacity broadband facilities, especially in rural areas. The initial, up-front capital expenditures are often an impediment to deploying next-generation broadband networks, and creating a build-out fund within the E-rate Program could help to overcome this barrier. In designing this capital investment approach, the E-rate program should not pick winners and losers among technologies arbitrarily. The selected technology should meet the following criteria:

1. The broadband technology should be capable of allowing schools and libraries to meet the national broadband goals for each location;

2. The broadband technology must provide a high-quality connection – symmetrical, low latency, low jitter, and capable of handling bursting capabilities for flash events/usage;
3. The broadband technology must be scalable – capable of being upgraded easily – to support longer-term capacity needs;
4. The broadband technology must be cost-effective – the capital investment required should lead to lower recurring annual bandwidth charges with a sensible timeframe related to the technology that can be used to quantify the return on the investment.

Furthermore, schools and libraries should have the option to self-construct their own fiber networks. In considering such self-provisioning, E-rate applicants should also have the option to purchase dark fiber, which should be treated equally as lit fiber. It has been suggested that not all schools or libraries have staff with the technical know-how to build and manage fiber networks. But fiber ownership does not necessarily mean that schools and libraries must operate and manage the fiber on their own. Fiber operations and maintenance agreements with third-party companies are commonplace and provide the opportunity for individual schools and libraries as well as consortia to evaluate and secure the most cost-effective bids for these services. Traditional service providers, which have these types of skills and competencies, should be able to bid on these types of services as well.

Other E-Rate Issues:

There are other steps that the FCC can take to bridge the “rural fiber gap” identified by Chairman Wheeler, such as:

- i. Ensure that fiber built with E-rate funding should include open interconnection. There may not be sufficient financial incentive to build new fiber to a single rural school, but if E-rate dollars are used to build fiber with open interconnection, this would push fiber closer to the rural endpoints and would allow other providers to extend off that fiber to build additional networks to serve other schools, libraries and the surrounding community.
- ii. Establish a clear cost-allocation approach that allows E-rate funded networks to be shared with other users, as long as these non-E-rate users pay their allocated share of the costs. The National Broadband Plan found that shared infrastructure can lead to lower costs for all users, and the FCC’s E-rate policies should be designed to facilitate such sharing.
- iii. Coordinate the E-rate program with the other Universal Service Fund programs, especially the Healthcare Connect Fund and the Connect America Fund. These other programs should work in unison, and should not be duplicative, to maximize the potential benefit of these investments in broadband for rural America.

We appreciate the opportunity to submit these views. Please feel free to contact me at 206-782-1091 or jen@thequilt.net for further information about the Research and Education Networks.

Sincerely,

A handwritten signature in black ink, appearing to read "Jen Leasure". The signature is written in a cursive style with a long, sweeping underline.

Jen Leasure
President & CEO
The Quilt