Before the
Federal Communications Commission
Washington, D.C. 20554

Modernizing the E-rate	)	WC Docket No. 13-184
Program for Schools and Libraries	)	

COMMENTS OF
NTCA–THE RURAL BROADBAND ASSOCIATION

NTCA–The Rural Broadband Association ("NTCA")[1] hereby submits these comments in response to the *Public Notice*[2] released by the Federal Communications Commission ("Commission") on March 6, 2014 in the above-captioned proceeding. The *Public Notice* seeks comment on several discrete issues related to modernization of the Universal Service Fund ("USF") Schools and Libraries ("E-rate") program.

As NTCA has previously stated,[3] the E-rate universal service program is a critical "piece of the puzzle" in terms of making broadband service available in sparsely-populated, high-cost rural areas of the nation. Along with the High-Cost universal service program, the E-rate mechanism has made available advanced communication services in rural areas that would otherwise lack access. The two specific programs should be seen as important complements to one another in achieving a broader comprehensive universal service mission.

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[1] NTCA represents nearly 900 rural rate-of-return regulated telecommunications providers ("RLECs"). All of NTCA's members are full service local exchange carriers and broadband providers, and many provide wireless, video, satellite, and/or long distance services as well.

[2] *Wireline Competition Bureau Seeks Focused Comment on E-Rate Modernizatio*n, WC Docket No. 13-184, Public Notice, DA 14-308 (rel. Mar. 6, 2014) ("Public Notice").

[3] Comments of NTCA and WTA, WC Docket No. 13-184 (fil. Sep. 16, 2013).

As the record compiled in response to the *E-rate Modernization NPRM* [4] has made clear, the E-rate mechanism is in need of modernization and simplification, however, to enable its Community Anchor Institution ("CAI") beneficiaries to access modern, high-capacity broadband networks and to make the mechanism more user-friendly and responsive to beneficiaries' needs. In this regard, NTCA's RLEC members have a vested interest in the long-term success of the mechanism and the goals of this proceeding. Schools, libraries, and other CAIs (and their students and patrons) are part of the community in which RLEC owners, managers, directors, and employees reside and to which they have strived over decades to provide communications services comparable to those available in urban areas. These CAIs are also some of RLECs' largest customers.

Turning to the specific issues raised in the *Public Notice*, the Commission is correct to examine ways to extend high-capacity connections to schools and libraries that lack access,[5] and at the same time to direct more support, where needed, for the internal connections that are necessary to "one-to-one leaning" in schools and libraries.[6] The *Public Notice* is correct that "Wi-Fi has transformed computing and education."[7] Moreover, taking advantage of robust connections "to the schoolhouse door" requires sufficient internal connections to bring the benefit of that capacity to each and every student.

Improving the quality of broadband connections both to and within schools and libraries will require a carefully coordinated effort that avoids consuming the E-rate "budget" for any one objective at the expense of the other – or to the detriment of schools and libraries that may

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[4] *Modernizing the E-Rate Program for Schools and Libraries*, Notice of Proposed Rulemaking, WC Docket No. 13-184, FCC 13-100 (rel. July 23, 2013) ("*E-rate Modernization NPRM*").

[5] *Public Notice*, ¶¶ 24-33.

[6] *Id*., ¶¶ 8-23.

[7] *Id*., ¶ 8.

already have robust connections and are dependent upon E-rate discounts to help make the best possible use of them. Such an effort also requires rejection of "one-size-fits-all" solutions that would fail to direct limited E-rate funds to where they are needed the most.

Thus, the "solution" to E-rate modernization must depend, in the first instance, upon isolation and clear definition of the "problem" at hand – that is, to give each school and library what it needs to achieve its educational or societal mission, the E-rate program must account for the unique need that each individual school or library has (whether that be a network connection to a school or library facility in the first place, a more robust connection, an affordable connection, or improved internal connections). And, with respect to outside plant infrastructure in particular – which can be quite costly and thus consume limited budget resources at the expense of other objectives – the Commission should leverage complementary federal programs and build upon network assets already in place, many made possible by a combination of High-Cost program, Rural Utilities Service ("RUS"), and National Telecommunications and Information Administration ("NTIA") resources.[8]

This last consideration is particularly important in areas served by RLECs. As an NTCA survey completed in September 2013[9] demonstrates, RLECs have in large part already delivered

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[8] For those institutions seeking to use E-Rate support for the construction of physical broadband outside plant infrastructure (presumably only in areas where other federal programs are not already at work deploying such networks), rigorous safeguards should be adopted. These safeguards should at a minimum include: (1) a robust, public challenge process that requires an E-Rate applicant seeking funding for any physical outside plant infrastructure construction to demonstrate that they have sought out existing providers or access to existing network facilities and that no such facilities are in fact available to support broadband services that are needed in the reasonably foreseeable future; (2) a 60-day period in which an existing provider can demonstrate that their network facilities are capable of connecting, within 180 days, the school or library in question with broadband services meeting the target speed; (3) a meaningful matching funds requirement that is the same for the purchase of services from an existing provider and the deployment of broadband infrastructure; and (4) a bright-line prohibition on using revenues from excess capacity as a source of matching funds.

[9] The survey sent to the NTCA membership was completed by 238 companies, many serving multiple study areas, across 38 states.

on the vision of connectivity (at least "to the schoolhouse door") contemplated by the *E-rate Modernization NPRM*. Specifically, that study found that:

- Of the 1,208 K-12 schools identified by NTCA members as located within their serving areas, 907 (75%) of those are already connected by Fiber-to-the-Premises ("FTTP"), and another 132 (11%) are connected by Fiber-to-the-Node ("FTTN"). Only 60 such schools (5%) are not connected at all to the telco network, although it is quite possible that they could be served by another provider (*e.g.*, a cable company).

- Of those connected schools, NTCA members reported offering maximum speeds of 912 Mbps (mean) and 100 Mbps (median), while the average speed purchased is 128 Mbps (mean) and 20 Mbps (median).

- Of the 484 libraries identified by NTCA members as located within their serving areas, 224 (46%) of those are connected by FTTP, and another 64 (13%) are connected by FTTN. Only 30 such libraries (6%) are not connected at all to the telco network, although it is quite possible that they could be served by another provider (*e.g.*, a cable company).

- Of those connected libraries, NTCA members reported offering maximum speeds of 248 Mbps (mean) and 40 Mbps (median), while the average speed purchased is 13 Mbps (mean) and 6 Mbps (median).

As the NTCA membership survey shows, RLECs, in the vast majority of cases, have sufficient network capacity in place to meet today's (and tomorrow's foreseeable) demands.

With this in mind, NTCA urges the Commission to view E-rate modernization via an analytical framework that leverages RLECs' success, and targets E-rate resources where needed most. Doing so requires distinguishing between the challenges of "availability" and "affordability," as follows:

> 1. Affordability – The school or library in question has a robust connection in place today that supports broadband speeds that are reasonably likely to be used by the school in the foreseeable future (or such connections are in the process of being constructed in the area). The problem to be solved then is not how to connect the school, but how to ensure that the school can obtain a reasonable level of broadband for its mission at a reasonable price on an ongoing basis.[7]

2. Availability –

a. Partial Availability – The school or library in question has some level of broadband access today (or facilities to enable such broadband access are in the process of being constructed in the area), but the last-mile connection to that school or library does not support broadband speeds that are reasonably likely to be used by the school in the foreseeable future. The problem to be solved then is how to upgrade the last-mile connection to the school to enable higher-speed broadband access, but there is no need to rebuild an entire network from scratch.

b. Total Unavailability – The school or library in question has no broadband access today and there is no construction planned or underway to deploy facilities to enable such broadband access in that unserved area. The problem to be solved then is one of true unavailability, where a "new build" might offer the only solution.

As noted above, RLECs have made tremendous progress in delivering on the promise of a modernized E-rate program. A failure to leverage this success and the availability of high-capacity, scalable networks already in place, (and possibly treating each school and library as facing an "availability" problem where that may not be the case) will expend a significant amount of E-rate funds and utilize resources that could otherwise be directed towards keeping services affordable, funding the upgrade/installation of internal connections, or funding the construction of new connections in areas that truly lack them (the latter two points of which the *Public Notice* rightly focuses upon in particular). In contrast, tailoring solutions to the needs of each individual school or library and taking advantage of existing facilities can allow E-rate to extend the many benefits of broadband connections and services to as many students and library patrons as possible.

Moreover, the Commission should not allow the goals of cost-effectiveness and efficiency to inadvertently lead to the use of E-rate funds in a manner that leads to opposite ends. More specifically, the *Public Notice* seeks comment on "incentives and opportunities for schools and libraries to benefit from economies of scale in purchasing supported services."[10] As an

[10] *Public Notice*, ¶ 3.

initial matter, it should be said that some schools and libraries may find that a consortium is the best option to obtain services on a cost-effective basis. However, it is unclear why the Commission should be injecting itself into or encouraging consortium buying at all, rather than letting individual schools and districts make the decisions for themselves as to whether a consortium approach might make sense based upon their respective needs and capabilities.

The Commission should take great pains to avoid responding to perceived issues of availability or affordability by encouraging the inefficient use of consortia purchasing. For one, consortium purchasing poses a unique risk under certain circumstances; a consortium that is, for example, awarded E-Rate funds to build fiber transport or last mile facilities or lease dark fiber to serve a large number of schools in a particular area, when only a small number of those schools actually lack connectivity options and suffer from a "Total Unavailability" problem, would likely consume an inordinate amount of E-rate resources and thereby deny the benefits of E-Rate resources to other schools and libraries. Such a situation, while perhaps appearing cost-effective from the standpoint of that particular consortium purchaser, would in fact needlessly deploy resources where they may not be needed. Thus, consortium purchasing should be subject to a bright line rule – as should all other aspects of procurement using E-rate resources – that precludes use of such resources to build or procure outside plant in areas where other federal programs, such as the Broadband Technology Opportunities Program ("BTOP), the Broadband Initiatives Program ("BIP"), other RUS programs, and High-Cost USF, already facilitate the deployment of high-capacity networks.

To the extent that the Commission seeks to make greater use of consortium buying (as a means to drive down schools' and libraries' costs), it should ensure that "bulk buying" does not translate into and thus equal "bulk selling." A consortium of schools and libraries that spans a

large county may cross the service area of one or more providers (an RLEC included), including those that may serve only a portion of that county. As the *Public Notice* acknowledges, the formation of consortia in this instance could "unfairly disadvantage smaller providers that may be efficient local providers of high-capacity services,"[11] and that provider may in fact already have sufficient facilities in place to provide schools and libraries within its service area a high capacity broadband connection, at an affordable rate. Beyond that, in such a circumstance, encouraging the formation of consortia could also defeat the purpose of a group of schools or libraries seeking to band together in the first place to lower their overall costs. "Competitive bidding" would become "anti-competitive bidding," as a single supplier would present itself as the sole solution for the consortium. The inability of a provider (again, that may have a robust network capable of delivering sufficient capacity in place) to serve the entire consortium could result in a larger provider emerging by default as the sole "qualified" bidder, with little incentive to pass on any efficiencies to the consortium purchaser. The Commission should therefore make clear that consortia must not override local school purchasing decisions, must give full consideration to the procurement of services from multiple providers within a project footprint, and may not use "packaged" proposals and creative definitions of project scope to circumvent prohibitions on using E-rate resources to overbuild existing facilities and network assets that are already capable of delivering robust broadband to a given school or library location.

In addition, an analytical framework focused on effectively targeting resources is critical to ensure the affordability of broadband and the ability of schools and libraries to obtain the level of connectivity they need. That is, to the extent that E-rate funds end up directed to areas where existing facilities offering sufficient capacity already exist (or where existing facilities merely

[11] *Id.*, ¶ 35.

require limited upgrades to "last-mile" connections), resources that could "buy down" the rates charged to schools and libraries would not be available if consumed by outside plant deployment. Again, here, a targeted approach to how to utilize limited E-rate funds can make each E-rate dollar go further and deliver on the promise of ConnectED to as many schools and libraries as can be practicably reached.

Beyond that, a properly tailored discount matrix can also have a significant effect in terms of affordability, particularly for schools and libraries in high-cost rural areas. As the Commission is well aware, RLECs operate in some of the most difficult to serve, sparsely-populated areas of the nation, having to overcome geographical, topographical, and weather related challenges (among others) not found in most urban areas. These challenges increase the cost of building and maintaining high-quality broadband networks. Adding to this challenge are RLECs' costs for middle mile transport to the Internet backbone, costs which are part of the challenge that RLECs face in serving all of their customers, schools and libraries included. Accounting for the effect that this input has on rates, as part of an updated discount matrix, can enable more rural schools and libraries to drive down their costs and have access to the broadband connections necessary to meet their individual needs.

Finally, the Public Notice seeks comment on data collection, in particular the intersection with the FCC's effort to measure whether E-rate funds are used in a "cost-effective" manner.[12] Certainly, the cost-effective use of E-rate funds should be a top Commission priority. Unfortunately, achievement of this vital goal may be undermined because identification of the "problem" to be solved in the first instance, at a granular level, remains elusive. One only need

[12] Id., ¶ 37.

look at proposed reforms such as encouraging consortium purchasing (with all of its attendant risks, discussed above) to see that the proper framework is more complex, and requires a more localized analysis, than a "one-size" (or "larger size") fits-all solution can overcome. At the very least, the Commission should gather sufficient data from schools and libraries to assess their individual needs prior to undertaking widespread shifts in how networks are funded and built using E-Rate resources in part. And, with that needs assessment in hand, the Commission should, at each and every turn, seek to "solve the problem at hand" with tailored solutions rather than sweeping, "one-size-fits-all" "big-fixes" that fail to do the hard work of truly assessing the needs of program beneficiaries.

Respectfully Submitted,

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