

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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

COMMENTS OF COMCAST CORPORATION

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COMMENTS OF COMCAST CORPORATION

Comcast Corporation (“Comcast”) hereby submits these comments in response to the Public Notice released by the Wireline Competition Bureau (“WCB” or “Bureau”) of the Federal Communications Commission (“FCC” or “Commission”) in the above-captioned proceeding.¹

I. INTRODUCTION AND SUMMARY

Building on the President’s ConnectED initiative, Chairman Wheeler recently laid out a plan to modernize the E-rate program to provide “21st century connectivity into and throughout our schools and libraries.”² Comcast shares the vision for an updated program that will foster high-speed broadband connections to our nation’s classrooms and libraries. A modernized E-rate program, in combination with programs such as Comcast’s Internet Essentials,³ which connects low-income Americans to broadband Internet at home, can help create an integrated,

¹ *Wireline Competition Bureau Seeks Focused Comment on E-rate Modernization*, WC Docket No. 13-184, Public Notice, DA 14-308 (rel. March 6, 2014) (“Public Notice”).

² Remarks of Tom Wheeler, FCC Chairman, Council of Chief State School Officers Legislative Conference, at 2, 3 (March 17, 2014), http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0317/DOC-326083A1.pdf (“March 17 Wheeler Remarks”); *see also, e.g.*, Tom Wheeler, FCC Chairman, *Helping American Students Compete in a Digital World*, Official FCC Blog (Jan. 24, 2014), <http://www.fcc.gov/blog/helping-american-students-compete-digital-world>.

³ Comcast’s Internet Essentials program – the nation’s largest and most comprehensive broadband adoption program – has connected more than 1.2 million Americans to the Internet in just two and a half years. David L. Cohen, Executive Vice President, Comcast Corporation, *Year Three Internet Essentials Progress Report*, Comcast Voices Blog (March 4, 2014), <http://corporate.comcast.com/comcast-voices/year-three-internet-essentials-progress-report>.

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always-on digital learning platform. This continuum of connectivity can deliver improved educational outcomes for our students and prepare the next generation for success in an increasingly competitive digital world.

Comcast supports the Commission’s objectives of directing additional funding to promote broadband deployment to schools and libraries and managing the E-rate program more effectively and efficiently.⁴ In carrying out these measures, the Commission must continue to focus on the fact that it is not enough to get high-capacity broadband to the door of the school. As Comcast previously has emphasized, the E-rate program must promote “whole network solutions”⁵ that allow schools⁶ to deliver these high-speed connections directly to classrooms where they can be used to enhance a student’s daily educational experience.⁷ Comcast, thus, commends the Bureau for seeking comment on how it can “best focus E-rate funds on high-capacity broadband, especially high-speed Wi-Fi and internal connections.”⁸

⁴ *Modernizing the E-Rate Program for Schools and Libraries*, Notice of Proposed Rulemaking, 28 FCC Rcd 11304, ¶ 13 (2013) (“NPRM”) (outlining the Commission’s proposed goals for the modernized E-rate program).

⁵ *See, e.g.*, Comments of Comcast Corporation at 22-23 (“Comcast Comments”). (Unless otherwise indicated, all comments referenced herein were filed in WC Docket No. 13-184 on September 16, 2013, and all reply comments referenced were filed in WC Docket No. 13-184 on November 8, 2013.)

⁶ While the comments herein at times focus on schools, Comcast believes that the reforms and measures it proposes should apply with equal force to the participation of libraries in the E-rate program.

⁷ As President Obama asserted in announcing the ConnectED initiative, America must “get this technology into classrooms, and into the hands of teachers trained on its advantages.” *ConnectED: President Obama’s Plan for Connecting All Schools to the Digital Age*, The White House, http://www.whitehouse.gov/sites/default/files/docs/connected_fact_sheet.pdf.

⁸ Public Notice ¶ 4.

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Because access to high-speed internal connections is essential to a successful E-rate program, the Commission must ensure that there is funding each year to enable schools to implement technologies that will deliver bandwidth throughout their buildings and directly to the students who can take advantage of digital learning tools.⁹ Funding for internal connections will, in turn, create demand for higher-bandwidth connections to the school.

The Commission also must ensure that E-rate funds are expended efficiently in order to maximize the impact of the program's limited resources. For example, the funding allotted for internal connections should be spent on equipment and services that deliver high-speed broadband within the school and classrooms. In addition, the Commission should redirect support from outdated narrowband services to modern broadband services and infrastructure. Most notably, the Commission should phase out support for legacy voice services and transition support to more cost-effective Voice over Internet Protocol ("VoIP") alternatives that are provided over broadband.

Similarly, the Commission should adopt measures that will enhance the ability of schools and libraries to purchase E-rate services in a cost-effective manner. Specifically, schools and libraries should have access to technical resources and guidance to assist them in assessing their technological needs and formulating efficient network plans. The Commission also should ensure that schools and libraries properly evaluate competing bids for eligible E-rate services. For example, in assessing the costs of acquiring dark fiber, a school should consider all of the

⁹ Relatedly, Comcast applauds the Commission's efforts to make more spectrum available for Wi-Fi, which is essential for delivering high-speed broadband connections to the classroom. *See Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, ET Docket No. 13-49, First Report and Order, FCC 14-30 (rel. April 1, 2014) ("5 GHz Order").

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costs, including those incurred to activate, manage, and maintain the facility. In implementing these cost-effectiveness policies, the Commission should be cautious to avoid any possible negative impact that such measures may have on broadband deployment and competition. For example, there should be adequate safeguards in place to ensure that consortia that cover large geographic areas do not reduce the number of service providers that are able to bid, potentially shutting out the most cost-effective solutions, which may be achieved by using a combination of service providers.

Finally, the Commission also can increase E-rate's efficient administration by minimizing the burdens that currently are associated with the program. Toward this end, the Commission should streamline the complex filing process, simplify applications for multi-year contracts and permit lawful multi-year funding commitments, accelerate the disbursement of E-rate funds, and provide program participants with timely guidance when issues regarding the program's rules arise.

II. THE COMMISSION SHOULD ENSURE THAT FUNDING IS MADE AVAILABLE FOR THE INTERNAL CONNECTIONS NEEDED TO DELIVER HIGH-SPEED BROADBAND SERVICE TO CLASSROOMS

The E-rate program unquestionably has “been a crucial part of helping our nation's schools and libraries connect to the Internet.”¹⁰ Since Congress launched the E-rate program in 1996, millions of American students and teachers have benefited from this program. Also during this period, the broadband industry has invested over \$1.2 trillion to deploy broadband

¹⁰ Public Notice ¶ 2; *see also, e.g.*, News Release, FCC, *FCC Launches Modernization of E-Rate Program to Deliver Students & Teachers Access to High-Capacity Broadband Nationwide*, at 1 (July 19, 2013), http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0719/DOC-322284A1.pdf (“Over the past 15 years, support provided by the E-rate program has helped revolutionize schools’ and libraries’ access to modern communications networks.”).

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infrastructure across this country.¹¹ Today’s digital learning opportunities require more than the delivery of high-speed broadband to the school – they require access to high-speed broadband service within individual classrooms. For example, the ability to use digital textbooks, work on multimedia projects, stream educational video content, conduct Internet-based research, take online courses that are not locally available, and interact with content experts require a high-speed broadband connection to students in classrooms.

Despite the clear need for these internal connections, the Bureau correctly observes that, as the “equipment and cabling used to deploy the interior pieces of broadband networks have become increasingly important, . . . the E-rate program has provided less support and funded fewer applicants seeking support for such internal connections.”¹² As a result, schools may lack the infrastructure required to deliver high-speed services to the classrooms where they are needed to take advantage of digital learning tools. The Commission just last week took an important step that will aid in remedying this problem by making additional unlicensed spectrum

¹¹ See, e.g., *Broadband Adoption: The Next Mile: Hearing Before the S. Comm. on Commerce, Sci., & Transp., Subcomm. On Commc’ns, Tech., and the Internet*, 113th Cong. (2013) (testimony of David L. Cohen, Executive Vice President, Comcast Corporation); Comments of Cox at 1-3 (“Cox Comments”); Comments of the American Cable Association at i (“ACA Comments”); Comments of NTCA – The Rural Broadband Association and the Western Telecommunications Alliance at 13 (The rural associations conducted a survey of their members that demonstrated that “in many rural areas the laudable vision of connecting schools and libraries is already being realized . . . and that RLECs in the vast majority of cases have sufficient capacity in place to meet today’s (and tomorrow’s foreseeable) demands.”) (“NTCA/WTA Comments”).

¹² Public Notice ¶ 6; see also, e.g., March 17 Wheeler Remarks at 2 (“[T]his past year, for the first time ever, . . . no funding was available to support Wi-Fi.”); Comments of Fairfax County Public Schools at 2 (Sept. 9, 2013) (“FCPS has not received funding for priority two since 2002, but has a tremendous need.”); Comments of Gaston County Schools at 2 (Sept. 6, 2013) (“Due to budgetary restraints, we have been unable to provide wireless connectivity in 26 of our 33 elementary schools.”); Comments of Rockingham County Public Schools at 2 (Sept. 5, 2013); Comments of the State E-Rate Coordinators’ Alliance at 7-8 (“SECA Comments”).

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available in the 5 GHz band.¹³ Now, the FCC must build upon this step by enabling schools to make use of that and other Wi-Fi spectrum. The Commission can ensure that schools have access to a broadband connection that “supports digital learning,”¹⁴ and that students can reap the full benefits of today’s digital learning opportunities, only if funding is made available for internal connections.¹⁵

In its initial comments, Comcast stressed the importance of a “whole network” approach to reforming the E-rate program that would ensure that “connectivity to schools and internal connections are funded together and all eligible services are given equal priority.”¹⁶ If, as the Bureau’s Public Notice appears to contemplate, the distinction between priority one and priority two remains in place, the methodology the Commission employs for allocating the program’s limited resources must produce an annual pool of funds for internal connections that will enable schools to plan for and obtain end-to-end services that deliver high-capacity broadband to the classroom.¹⁷ Internal connections can no longer be relegated to whatever money, if any, remains

¹³ 5 GHz Order ¶ 2.

¹⁴ NPRM ¶ 17.

¹⁵ See, e.g., *Schools and Libraries Universal Service Support Mechanism; A National Broadband Plan for Our Future*, Notice of Proposed Rulemaking, 25 FCC Rcd 6872, ¶ 67 (2010) (“Without upgraded Internet access and the internal connections necessary to bring the connection all the way to the classroom or library patron, many users simply will be unable to utilize the many applications available in today’s marketplace, such as high-definition video streaming, that support online learning.”); Comments of McGraw-Hill Education at 9 (“McGraw-Hill Education has seen firsthand the negative impact on students’ ability to utilize digital learning tools when schools lack sufficient internal wireless infrastructure.”); Reply Comments of the Education Coalition at 8 (“Education Coalition Reply Comments”).

¹⁶ Comcast Comments at 22; see also NPRM ¶ 146.

¹⁷ *CoSN’S E-Rate and Broadband Survey 2013*, attached to Reply Comments of the Consortium for School Networking, at 22 (Nov. 6, 2013) (“There is a strong and growing need to

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after all other funding requests are fulfilled. To the contrary, schools must have certainty that there will be funding available for these important connections in order to make efficient network planning decisions. As the Commission has recognized, the lack of certainty inherent in the existing system has created a perverse incentive for schools and libraries to design their networks using priority one services “in lieu of cheaper priority two services, like internal wireless connections.”¹⁸ The Commission has committed “a \$2 billion down payment on the expansion of high-speed connections over the next two years.”¹⁹ A substantial portion of these additional funds should be dedicated to the equipment and services needed within school walls to bring broadband to America’s classrooms.

The record in this proceeding plainly shows that high-speed broadband connections are widely available to schools and libraries at discounted rates today. The record also shows that many schools have not subscribed to the higher transmission speeds being offered because they are unable to obtain funding for the internal connections needed to deliver high capacity services to individual classrooms within a school.²⁰

develop strategic, end-to-end school network designs that address internal infrastructure and broadband connections as equal steps in delivering a robust learning environment for students.”).

¹⁸ NPRM ¶ 146; *see also, e.g.*, Comments of Cisco Systems, Inc. at 7-8 (“Cisco Comments”); Comcast Comments at 22; Comments of Funds for Learning, LLC at 9.

¹⁹ Prepared Remarks of Tom Wheeler, FCC Chairman, National Digital Learning Day, at 3 (Feb. 5, 2014), http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0205/DOC-325447A1.pdf.

²⁰ *See, e.g.*, Cisco Comments at 7-8 (“[I]n most cases, it is not that schools cannot obtain or afford adequate bandwidth into and out of the school district; rather, they cannot afford adequate bandwidth within the schools themselves.”); Reply Comments of Windstream Corporation at 5 (“Windstream Reply Comments”).

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Comcast's own experience may help to illustrate the problem. The Ethernet and other fiber-based services that Comcast deploys to most of the schools and libraries it serves are scalable to 10 Gbps. Currently, however, only approximately one third of those circuits provide 1 Gbps (or, in some cases, greater) bandwidth, approximately forty percent more provide 100 Mbps or greater, and the remaining circuits provide less than 100 Mbps. While Comcast readily can increase the capacity of those existing connections to the school to meet greater demand for bandwidth in classrooms, schools simply have no reason to subscribe to high-speed broadband services if they cannot deliver that capacity to students in their classrooms.²¹ Accordingly, it is imperative for the Commission to ensure that funding is made available for the internal connections needed to provide students with access to modern digital learning tools in the classroom – resources students will need to succeed in the competitive international marketplace of the 21st century. Moreover, ensuring that schools and libraries have funding for internal connections will lead to increased demand by schools and libraries for much faster broadband connections that, as the record demonstrates, many providers already offer.

III. THE FCC SHOULD FOCUS FUNDING ON THE SERVICES AND EQUIPMENT THAT PROVIDE HIGH-CAPACITY BROADBAND TO, AND DISTRIBUTE BROADBAND WITHIN, SCHOOLS AND LIBRARIES

Because the E-rate program has limited resources, the Commission must take steps to ensure that the available funds are used as effectively and efficiently as possible. To that end, the Commission should concentrate its reform efforts on fulfilling its goal of reorienting the

²¹ See, e.g., Comments of the Minority Media and Telecommunications Council, the Rainbow PUSH Coalition, and the League of United Latin American Citizens at 16-17 (“MMTC *et al.* Comments”).

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E-rate program to focus on “supporting high-capacity broadband connectivity to and within schools and libraries.”²²

Consistent with this overriding objective, the Commission should limit funding for internal connections to the services, equipment, and supporting software that are “essential to getting high-capacity broadband from the building’s front door to the computer, tablet, or other learning devices in schools and libraries.”²³ As the State E-Rate Coordinators’ Alliance (“SECA”) found, one of the factors “driving up demand for Priority 2 funding . . . is the breadth of the Priority 2 Eligible Services List.”²⁴ Accordingly, the Eligible Services List for internal connections should be narrowly focused on the network components that deliver the broadband services used for advanced digital learning tools in the classroom. The items eligible for support should include caching services, bandwidth optimizers, Wi-Fi controllers, and equipment and services that provide similar functionalities.²⁵ Because these types of devices and services enable a school or library to meet its digital performance requirements efficiently,²⁶ adding these elements to the list while removing narrowband equipment and services will advance the Commission’s goal of promoting the cost-effective use of E-rate funds.

²² Public Notice ¶ 40.

²³ *Id.* ¶ 11.

²⁴ *SECA’s E-Rate Reform 2.0 Recommendations*, attached to Letter from Gary Rowson, State E-Rate Coordinators’ Alliance, to Marlene H. Dortch, FCC Secretary, CC Docket No. 02-6, at 7 (June 24, 2013) (“SECA White Paper”).

²⁵ *See, e.g.*, Cisco Comments at 8; Reply Comments of the National Cable & Telecommunications Association at 7-8 (“NCTA Reply Comments”); Comments of TV Band Service at 2 (Sept. 12, 2013); Comments of Windstream Corporation at 3-4.

²⁶ For example, Amplify Education estimates “that by including local caching capability at the network edge . . . , school districts can reduce their bandwidth needs by as much as 30-40%.” Comments of Amplify Education, Inc. at 9.

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The Commission also should phase out support for legacy services, such as paging, directory assistance, and traditional standalone voice. Instead of continuing to support these services, the FCC should redirect those funds to provide additional support for high-capacity broadband connections to the classroom and services provided over broadband platforms.²⁷ In the case of voice services, the transition to broadband-focused funding would mean shifting funding from legacy circuit-switched voice services to VoIP.²⁸ As the Bureau aptly observes, because VoIP “is generally considered to be more cost-efficient than traditional voice services,”²⁹ the shift to VoIP support should make the E-rate program more economically efficient and permit “applicants [to be] eligible for increased levels of support for broadband services to and within schools and libraries.”³⁰

²⁷ See, e.g., News Release, FCC, *FCC to Invest Additional \$2 Billion in High-Speed Internet in Schools and Libraries* (Feb. 3, 2014), http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0203/DOC-325403A1.pdf (“Funding for new investments in high-speed Internet will come from reprioritizing existing E-Rate Funds to focus on high-capacity Internet connectivity.”); MMTC *et al.* Comments at 15 (“Eliminating support for these services would free up valuable funds implementing high-capacity networks in classrooms and library buildings. In contrast, continuing to fund these services would only encourage schools and libraries that are reluctant adopters of new technology, or that are not scrupulous reviewers of their applications for E-rate funding, to continue with past practices.”); Reply Comments of the Leading Education by Advancing Digital Commission at 9-10.

²⁸ See, e.g., Comments of the International Association for K-12 Online Learning at 14 (“Of iNACOL members surveyed, over seventy-eight percent would support the removal of landline telephone services as an eligible service in order to expand support for broadband access, infrastructure, or equipment.”); Comments of the San Diego County Office of Education at 4 (Sept. 13, 2013) (“[W]e agree with phasing out services that do not support learning. For example, the convergence of voice and data now allows for increased efficiencies through Voice over Internet Protocol.”).

²⁹ Public Notice ¶ 42.

³⁰ *Id.* ¶ 43; see also *id.* at n.68. The Commission may consider extending the transition period in the event a school or library does not have access to adequately robust VoIP services today. See, e.g., Comments of the American Library Association at 15 (“Libraries located in

IV. THE COMMISSION SHOULD IMPLEMENT MEASURES DESIGNED TO ENSURE THE COST-EFFECTIVENESS AND EFFICIENCY OF THE E-RATE PROGRAM

The Public Notice seeks comment on additional steps that “the Commission can take to help ensure efficient use of E-rate funds spent on broadband projects.”³¹ As Comcast previously emphasized in this proceeding, one of the most important steps the Commission can take to achieve its efficiency objective is to ensure that schools and libraries have access to the technical advice and assistance that they need to obtain efficient broadband services that meet their technological requirements. For their part, schools and libraries need to make certain that the approach they take to satisfy their technological needs will ensure the cost-effective use of E-rate funds. Schools and libraries, for example, should be certain that their assessments of competing products are based on an apples-to-apples comparison that takes into account all of the costs associated with each alternative. The Commission also should adopt safeguards to ensure that consortium purchasing arrangements do not result in reduced competition in the bidding process. Finally, the Commission can and should increase the overall effectiveness of the E-rate program by minimizing the administrative and regulatory burdens the current E-rate regime imposes on program participants.

areas where alternatives to POTS are either not available or cost prohibitive . . . should be designated as ‘exempt’ and should be able to receive support for an application requesting POTS.”) (“ALA Comments”).

³¹ Public Notice ¶ 34.

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A. Providing Schools and Libraries with Access to the Resources Needed for Technology Planning

The Public Notice seeks comment on the role of technology planning in ensuring cost-effective purchasing of broadband services.³² As explained in Comcast’s previous comments in this proceeding, the Commission’s reform of the E-rate program should enhance the ability of each school and library to assess accurately its technological requirements so that it has sufficient bandwidth to meet the performance benchmarks for its classrooms – *i.e.*, broadband targets that a high-speed service must meet to enable students to take advantage of digital learning tools in the classroom. In other words, the program’s reforms should assist schools and libraries in determining the broadband capacity that is needed by their students in *classrooms* rather than on achieving an artificial aspirational guideline for the capacity of the school’s connection.

This targeted development and planning process is a complicated undertaking that requires specialized technical knowledge. As Cisco observes, “the network necessary to support digital learning devices and content is far more than just wires, or even wireless routers. It is a complex combination of interdependent hardware and software that must be designed properly.”³³ The Commission, thus, should implement measures that permit schools to obtain the necessary expert advice and technical information without undermining the competitive bidding system.³⁴

³² *Id.* ¶ 36.

³³ Cisco Comments at 12-13.

³⁴ *See, e.g.*, Comments of the National Cable Telecommunications Association at 17 (“While it is important to guard against waste, fraud and abuse, the Commission should consider ways for service providers to inform schools and libraries of the services that are available to

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Comcast outlined one possible approach to this issue in its prior comments in this proceeding.³⁵ Under that approach, schools and libraries would have access to “digital template” software that could help them determine the technical parameters of a broadband network that would meet their particular requirements.³⁶ Each school or library then could build upon the information developed from the template and issue an RFI to solicit input from service providers, including information about the services they offer and feedback regarding the school’s initial network design proposal. In this way, a school or library could use the RFI process to develop an efficient network design and to identify technology solutions that meet its needs.

Moreover, knowledgeable and experienced technology vendors and service providers located in the area should be well-positioned to provide timely and effective assistance.³⁷ The school or library then could issue a detailed RFP that would enable it to select the most cost-effective vendor that is capable of fulfilling its identified broadband requirements. As COMPTTEL notes, this type of “simple and transparent process” would inform potential bidders

bring broadband to students and library patrons.”) (“NCTA Comments”); Windstream Reply Comments at 4 (The Commission must “make clear that such discussions do not run afoul of the FCC’s competitive bidding rules.”).

³⁵ Appendixes A-C, attached to Comcast Comments at 26-34 (outlining potential questions for inclusion in digital template software, information for inclusion in Requests for Information (“RFIs”), and information for inclusion in Requests for Proposals (“RFPs”)).

³⁶ Notably, entities already have recognized the value of this type of software and are working to provide schools with new planning tools. *See, e.g.*, SEND (Smart Education Networks by Design), CoSN, <http://www.cosn.org/focus-areas/it-management/send-smart-education-networks-design> (last visited on April 4, 2014).

³⁷ *See, e.g.*, Windstream Reply Comments at 4 (noting that “technology vendors and service providers . . . are uniquely qualified to provide information on the most efficient and cost-effective solutions”).

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of all requirements and criteria for the networks and services to be provided.³⁸ Further, “if the bidding process occurs well in advance of the required delivery date, then multiple bidders are more likely to participate in the process, offer alternative solutions at competitive prices, and drive down costs for the Fund as a whole.”³⁹ Giving schools and libraries access to the technical advice and assistance they need to develop a cost-effective plan that meets their technology requirements will help to ensure the efficient use of E-rate funds.

B. Implementing Measures Designed to Maximize the Cost-Effectiveness of E-Rate Expenditures

As the Commission correctly has noted, “[e]nsuring that schools and libraries spend E-rate money in the most cost-effective ways possible maximizes the impact of limited E-rate funds.”⁴⁰ There are several measures the Commission could adopt that would advance this important goal. In designing cost-effectiveness measures, the Commission should be guided by two principles: (1) ensuring that its policies build on the existing “primary factor” rule; and (2) ensuring that measures implemented for the purpose of promoting cost-effective purchasing decisions do not inadvertently result in inefficient funding or harm broadband competition.

First, as Comcast and others noted in initial comments, all policies adopted in this proceeding to promote cost-effective spending should build upon the Commission’s “primary factor” rule.⁴¹ This rule requires that, while “[a]pplicants may . . . take other factors into

³⁸ Reply Comments of COMPTTEL at 5-6.

³⁹ *Id.*

⁴⁰ NPRM ¶ 41.

⁴¹ *See, e.g.*, Comments of AT&T Inc. at 5 (“AT&T Comments”); Comments of CenturyLink at 22 (“Today, E-rate procurement rules require price to be the primary factor when selecting a bid for service. That standard has served the program well.”) (“CenturyLink

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consideration . . . in selecting the winning bid, price must be given more weight than any other single factor.”⁴² In many cases, schools and libraries will be able to apply this rule and determine the lowest bidder simply by comparing prices for similar products. In some circumstances, however, it will be important for schools and libraries to consider both the total costs of competing bids and significant differences in performance capabilities (*e.g.*, transmission speed). For example, schools and libraries must make an apples-to-apples comparison in comparing a bid to acquire dark fiber with a bid to obtain high-speed broadband services from an experienced provider. As the Commission has recognized, “[p]roviding services using dark fiber may involve a number of additional costs beyond lease payments for fiber connectivity, and those costs should be factored in to a total-cost comparison across bids.”⁴³ Accordingly, a simple price comparison would ignore the substantial expenses that a school or library would incur in order to activate, manage, and maintain dark fiber. Numerous parties in the record echo this admonition,⁴⁴ and also point out that such an approach may be an inefficient

Comments”); NCTA Comments at 12-13 (“It is critically important . . . that the Commission’s rules continue to ‘require all applicants to select the service or equipment offering that will be the most cost-effective means of meeting their educational needs and technology goals.’”).

⁴² *Request for Review of the Decision of the Universal Service Administrator by Ysleta Independent School District*, Order, 18 FCC Rcd 26407, ¶ 50 (2003).

⁴³ *See, e.g., Schools and Libraries Universal Service Support Mechanism; A National Broadband Plan for Our Future*, Sixth Report and Order, 25 FCC Rcd 18762, ¶ 18 (2010).

⁴⁴ *See, e.g., Reply Comments of Cbeyond Communications, LLC, EarthLink, Inc., Integra Telecom, Inc., Level 3 Communications, LLC, and tw telecom inc.* at 9 (“Schools often underestimate the costs of lighting dark fiber or constructing and maintaining their own fiber networks. And they frequently lack the technical expertise and resources to handle the burdens of operating such networks.”) (“Cbeyond *et al.* Reply Comments”); Cox Comments at 8; Comments of the Independent Telephone & Telecommunications Alliance at 15-16 (“ITTA Comments”); NTCA/WTA Comments at 9 n.8 (“The need for electronics, the need for maintenance of the outside plant network and internal connections, and the need to upgrade over

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use of limited E-rate funding.⁴⁵

Second, the Commission must take care to ensure that the measures it adopts to encourage cost-effective purchasing decisions do not have the unintended consequence of reducing competition among potential providers of E-rate services. For example, consortia must be implemented in a manner that does not actually reduce the number of potential providers that are able to submit a bid. If, for instance, a consortium of schools covers a large geographic area and potential suppliers are required to submit bids to provide service throughout the entire area, otherwise qualified bidders could be precluded from bidding because they do not serve the entire area.⁴⁶

Eliminating qualified potential bidders will not promote an efficient and cost-effective E-rate program. As the American Cable Association notes, “A key way for the E-rate fund to

the life of a network that may have a decades-long useable life are all things that . . . must be taken into account in considering the ‘true cost of ownership’ of a network.”).

⁴⁵ See, e.g., AT&T Comments at 5 (“Providing support to build *private* fiber networks to schools and libraries that already have access to cost-effective high-speed broadband services would be grossly inefficient and wasteful of limited E-rate funding.”); ACA Comments at 2 (“Overbuilding is inequitable. . . . [U]tilizing existing networks is most efficient and would best leverage limited government funding to meet the Commission’s aims.”); CenturyLink Comments at 6 (“It is more cost-effective to secure services from an experienced provider that can provision efficiently and manage and operate reliably and cost effectively.”); NCTA Reply Comments at 5-6 (NCTA asserts that the FCC’s actions in the rural health care context could serve “as a model for how the Commission can address [similar concerns] in the context of the E-rate program.” In particular, NCTA notes that: (1) the Commission made clear that health care providers could construct their own networks with universal service support only where doing so is “absolutely necessary” and where broadband “is currently unavailable and . . . service providers lack sufficient incentives to construct it”; and (2) the Commission established a cap on the amount of Rural Health Care funding that could be spent each year on self-construction projects.).

⁴⁶ See, e.g., Cox Comments at 6 (“[F]urther encouraging consortia purchasing may actually increase prices because fewer service providers will be qualified to bid cost effectively on the entire consortium area due to limits on the geographic area they serve.”); NCTA Comments at 16.

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operate efficiently, maximizing the value of its limited resources, is to encourage *greater participation* by service providers . . . so that schools and libraries receive multiple bids to provide infrastructure and services.”⁴⁷

There are several safeguards the Commission can implement to address this particular concern while continuing to permit schools and libraries to achieve the efficiencies that consortia can provide. For example, NTCA and WTA suggest that the Commission should “make clear that consortia are free to – and [are] encouraged to – purchase the communications service(s) that best fit their needs from multiple providers.”⁴⁸ The Commission also could encourage consortia that cover large geographic areas, such as statewide consortia, to negotiate contracts with multiple service providers and then allow participating schools and libraries to purchase under the contract that most efficiently and cost-effectively meets their specific needs. The Commission, at a minimum, should ensure that consortia that serve large geographic areas do not require single-source contracts or that only service providers that serve the entire area are eligible to bid. Otherwise, participating schools and libraries may end up paying more for E-rate supported services than they would have if they requested bids individually.

C. Easing the Administrative Burdens Associated with the E-Rate Program

The record in this proceeding makes clear that the Commission’s E-rate reforms must streamline and simplify the existing E-rate application process.⁴⁹ Indeed, doing so is imperative

⁴⁷ ACA Comments at 4, 12 (emphasis added).

⁴⁸ Reply Comments of NTCA – The Rural Broadband Association and the Western Telecommunications Alliance at 2.

⁴⁹ *See, e.g.*, Cisco Comments at 17-18 (“The E-rate program would be both fairer and more efficient if the administrative process were simpler.”); Comments of the National Association of Independent Schools at 2 (Sept. 13, 2013) (“The current program’s administrative burden is

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to maximizing the efficient operation of the E-rate program. As the State Educational Technology Directors Association asserts, “Program complexity drives up costs, decreases participation, and reduces innovation.”⁵⁰ To minimize these concerns, the Bureau correctly notes that there are “simple changes the Commission can make to the E-rate information collections that will ease the administrative burdens on E-rate applicants and vendors that take advantage of a modernized E-rate program.”⁵¹

Comcast previously outlined several reforms the FCC should implement to streamline the currently complex filing process, accelerate the disbursement of E-rate funds, and provide program participants with much-needed certainty.⁵²

- (1) Permit Multi-Year Contracts and Funding. The FCC should allow applicants to enter into contracts with terms of up to five years in length and, consistent with applicable statutory restraints, should provide greater certainty to program participants by allowing them to receive up-front funding commitments that cover the full term of these contracts.⁵³ As the Education Coalition asserts, “One of the simplest steps the Commission can take is to provide applicants the certainty and simplicity of multi-year funding. The record clearly supports E-Rate funding for contracts up to five years in length, which is consistent with other procurement models in the education industry.”⁵⁴

already such that it has had the effect of dis-incentivizing schools with limited staff capacity to participate in E-Rate.”); Reply Comments of the Chief Officers of State Library Agencies at 1 (Nov. 6, 2013); Reply Comments of the Bill and Melinda Gates Foundation at 5 (Oct. 24, 2013) (“The current application process places an undue burden on schools and libraries, often requiring the use of outside experts and countless hours of staff time that could be dedicated to other educational or community purposes.”); Reply Comments of the National Education Association at 5.

⁵⁰ Comments of the State Educational Technology Directors Association at 21.

⁵¹ Public Notice ¶ 38.

⁵² See Comcast Comments at 35.

⁵³ *Id.* at 40-41.

⁵⁴ Education Coalition Reply Comments at 10-11.

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- (2) Streamline the FCC Form 471 Application Process. When schools enter into multi-year contracts, they should be permitted to file FCC Form 471 once for the entire contract term.⁵⁵ Further, the FCC should modify the Item 21 attachment to Form 471 so that all necessary data are submitted as part of the initial application process. That modest change would eliminate the need for USAC to issue repetitive requests for information.⁵⁶
- (3) Increase the Clarity of Program Rules. The FCC can provide greater certainty to program participants by promptly acting on requests for clarification.⁵⁷ For example, the Commission’s Lowest Corresponding Price (“LCP”) rule, which prohibits providers from charging E-rate customers a price above the lowest price that the service provider charges to similarly-situated non-residential customers for similar services,⁵⁸ has been a source of confusion for many years.⁵⁹ Indeed, a petition asking the Commission to clarify this rule has been pending for over four years.⁶⁰

⁵⁵ Comcast Comments at 35; *see also, e.g.*, CenturyLink Comments at 24 (supporting the filing of a single Form 471 for multi-year contracts and noting that “[m]ulti-year contracts have the potential to drive down service costs, provide greater certainty, and minimize duplicative application work and duplicative review by USAC”); Cox Comments at 12; MMTTC *et al.* Comments at 27; SECA Comments at 45; Comments of Sprint Corporation at 18; Comments of the School Superintendents Association *et al.* at 3 (Aug. 27, 2013); Comments of Verizon and Verizon Wireless at 20; ALA Comments at 29; Cbeyond *et al.* Reply Comments at 11-12 (asserting that because multi-year contracts “drive down service costs for schools and libraries while enabling service providers to recoup their investments,” the Commission should “allow applicants with multi-year contracts to file and undergo review of a single Form 471 application for the full term of the contract” and “allow those applicants to receive multi-year funding commitments”).

⁵⁶ Comcast Comments at 35-36; *see also* NPRM ¶ 53 (proposing to “revise the Item 21 attachment to the FCC Form 471 to collect data more consistently from all applicants”).

⁵⁷ Comcast Comments at 36-37.

⁵⁸ 47 C.F.R. §§ 54.500(f); 54.511(b).

⁵⁹ *See, e.g.*, Comcast Comments at 36-37 (noting ongoing uncertainty regarding issues such as the relationship between the LCP rule and the FCC’s capital amortization requirements, the treatment of promotional rates for purposes of the LCP requirement, and how providers should determine adherence with the “look-back” provision, which establishes a rebuttable presumption that rates offered within the previous three years are compensatory).

⁶⁰ Petition of United States Telecom Association and CTIA – The Wireless Association® for Declaratory Ruling Clarifying Certain Aspects of the “Lowest Corresponding Price” Obligation of the Schools and Libraries Universal Service Program, WC Docket No. 02-6 (Mar. 19, 2010).

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Numerous other commenters also proposed specific targeted measures that the Commission could take to simplify the E-rate program. For example, commenting parties support the creation of a centralized online portal that applicants can use to securely access their forms and correspondence and that USAC can use to keep applicants updated regarding the status of pending E-rate applications.⁶¹ The commenters also agree with the Commission’s proposal to “establish deadlines for USAC to issue funding decisions or complete its other processing tasks.”⁶²

Collectively, implementing these simple measures would reduce the burdensome nature of the current E-rate process. Moreover, they would help the Commission fulfill its objectives of “increas[ing] transparency throughout the application, commitment and disbursement processes” and “reduc[ing] the time it takes USAC to review applications for E-rate support in order to more quickly release funding commitment decisions.”⁶³

V. CONCLUSION

Consistent with the foregoing proposals, the Commission should ensure that its comprehensive plan for modernizing the E-rate program accelerates the deployment of advanced, end-to-end broadband networks that are capable of supporting 21st century learning tools to elementary and secondary school classrooms and libraries. The Commission further must ensure

⁶¹ See, e.g., CenturyLink Comments at 24; ITTA Comments at 3, 5; MMTC *et al.* Comments at 26; Comments of the National Educational Association at 9; SECA White Paper at 17-19.

⁶² NPRM ¶ 234; see also, e.g., ITTA Comments at 4; NCTA Comments at 14-15.

⁶³ NPRM ¶¶ 232-233.

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that schools and libraries are able to use the limited resources of the E-rate program to purchase these networks in an efficient, cost-effective manner.

Respectfully submitted,

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Certificate of Service

I hereby certify that on this 7th day of April, 2014, I caused a true and correct copy of the foregoing Comments of Comcast Corporation to be mailed by electronic mail to:

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