

From: Joanne Hovis, President, CTC Technology & Energy

Re: **Overview of E-rate Modernization**

This memorandum represents a high-lever overview of the Federal Communications Commission's (FCC) significant reforms to the E-rate program over the past year. The recent reforms offer new funding opportunities for non-traditional providers of broadband services (including public utilities and state, local, and tribal governments), as well as the potential to use the E-rate subsidy to build fiber laterals to schools and libraries.

The memorandum provides a background of the new E-rate reforms and then analyzes in-depth the FCC's Second E-rate Modernization *Report and Order* released on December 19, 2014 to highlight the new opportunities for public sector entities.

## **Background**

The Schools and Libraries Universal Service Fund program, known as E-rate, provides financial assistance to help schools and libraries obtain affordable broadband. Under the program, eligible schools and libraries may receive discounts ranging from 20 percent to 90 percent of the pre-discount price of eligible services. The discount rate given to schools and libraries is based on the percentage of students eligible for free or reduced price lunch or an alternative mechanism to determine need. (Libraries receive funding at the discount level of the school district in which they are located.)

For example, a school with 75 percent to 100 percent of students eligible for free or reduced price lunch would receive a 90 percent E-rate discount on eligible broadband services, and thus pay only 10 percent of the cost of those services. In addition, schools and libraries located in rural areas may also receive an additional 5 percent to 10 percent discount compared to urban areas.

Eligible schools, libraries, and consortia of schools and libraries apply for E-rate support every funding year (July 1 through June 30). E-rate applicants are generally<sup>1</sup> required to seek competitive bids for the services they seek to purchase using E-rate funds; the price of eligible products and services must be the primary factor in selecting the winning bid. Requests for telecommunications services and Internet connections (commonly referred to as Category 1 services) receive first priority for funding. The remaining funds are allocated to requests for support for internal connections and basic maintenance of internal connections (referred to as

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<sup>1</sup> Internet service with a total contract value of \$3,600 or less per year and with bandwidth of at least 100 Mbps down/10 Mbps up does not require a competitive bid process.

Category 2 services),<sup>2</sup> beginning with the most economically disadvantaged schools and libraries.

The FCC recently announced improvements to the program designed to achieve new efficiencies with the available funds and maximize its benefits for the nation's schools and libraries. The FCC established three new goals for the program:

- (1) Ensuring affordable access to high-speed broadband.
- (2) Maximizing the cost-effectiveness of spending for E-rate supported purchases.
- (3) Making the E-rate application process and other E-rate processes fast, simple, and efficient.

### ***First Report and Order***<sup>3</sup>

In July 2014, the FCC released a *Report and Order* that set new connectivity targets for the program to evaluate progress toward meeting the above goals. For schools, it set a high-speed broadband Internet access target of at least 100 Mbps per 1,000 students and staff in the short term and 1 Gbps per 1,000 users in the longer term, and connections scalable to 10 Gbps per 1,000 students for wide area networks (WANs) for schools. For libraries, it adopted an Internet access target of 100 Mbps for libraries that serve fewer than 50,000 people and 1 Gbps for libraries that serve 50,000 people or more.

The Order also focused on supporting internal connections, including Wi-Fi deployment within schools and libraries, to support digital learning and robust connectivity. It set a \$1 billion annual target for funding Category 2 internal connections within libraries and schools for two years (for a total of \$2 billion). That funding comes from unused USAC funds and is guaranteed for Category 2 services in 2015 and 2016; it is in addition to the \$3.9 billion allocated in the Second Report and Order).

The FCC took steps as well to reorient the E-rate program to focus on supporting high-speed broadband; these steps include a phasedown of support for voice services and elimination of support for other services such as e-mail. (Previous support for voice and these other services generally advantaged incumbent and retail broadband providers who would bundle these services together with broadband service to schools and libraries.)

Finally, the FCC adopted several measures to maximize the cost-effectiveness of spending for E-rate supported purchases. The measures included:

- Data collection and transparency measures including public access to data on the costs of services and equipment purchased through the E-rate program.
- Rule changes to make it easier for consortia purchasing of services by schools and libraries.

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<sup>2</sup> Category 2 services to schools and libraries are subject to a five-year, pre-discount budget. For schools, that budget is \$150 per student; for libraries, the budget is \$2.30 per square foot (rural) or \$5 per square foot (urban, population more than 250,000).

<sup>3</sup> The full order is available at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-14-99A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-99A1.pdf).

- Re-emphasis that providers bidding on E-rate supported services must offer the lowest corresponding price to schools and libraries.

### ***Second Report and Order***<sup>4</sup>

To further enable schools and libraries to find vendors willing and able to provide affordable high-speed connections to meet the connectivity targets adopted in July, the FCC released a second *Report and Order* in December 2014. The *Order* raised the E-rate funding cap from \$2.4 billion to \$3.9 billion to meet the long-term needs of the program. The adjustment included establishing a target of \$1 billion in E-rate support for internal connections such as WiFi through the funding year 2019.

The FCC also made significant reforms to the several program rules to increase schools' and libraries' options for purchasing affordable high-speed broadband connectivity and to encourage access to next-generation gigabit networks including:

- Provide greater flexibility on payment options for large non-recurring capital costs related to connecting to a high-speed broadband network.
- Equalize treatment of lit and dark fiber to offer an additional cost-effective option for deploying high-speed broadband.
- Allow for self-construction of high-speed broadband facilities by schools and libraries in the limited circumstances in which self-construction is the most cost effective option.
- Provide up to an additional 10 percent in additional funding to match state funding for special construction charges for last-mile facilities to support high speed broadband.
- Obligate certain telecom providers that receive funding from the high cost program of the Universal Service Fund to submit bids for high-speed broadband service to schools and libraries located in their geographic area at rates reasonably comparable to similar services in urban areas.

### **New Opportunities for Public Sector Entities**

During an evaluation of the E-rate program, FCC staff estimated that only 65 percent of schools have access to high-speed broadband that can be scaled up to meet the new connectivity targets, and that rural schools have even less access than urban schools. In addition, only a fraction of rural schools with access to high-speed connectivity are connecting at speeds that meet the new targets because of the high cost of connectivity, while other schools are unable to find a provider willing to offer high-speed services. The connectivity gap that libraries face is even wider, with half of all public libraries reporting connections of less than 10 Mbps.

In the *Second Report and Order*, the FCC took considerable steps to change this current broadband environment for schools and libraries and to encourage the development of gigabit fiber networks in communities, whether from private or public entities. First, it significantly raised the E-rate cap to meet the program's connectivity goals. The spending cap was raised \$3.9 billion in funding year 2015. It is an over \$1 billion increase from last year's cap of \$2.4

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<sup>4</sup> The full order is available at [https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-14-189A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-189A1.pdf).

billion. Total demand for support has exceeded the E-rate program's available funding almost every year since the program's inception. The increase was also critical to accommodate the rule changes that seek to encourage the deployment of fiber to schools and libraries and to bolster support for upgrading internal connections at these facilities.

The FCC also implemented a number of critical reforms to create more of a level playing field for non-traditional broadband providers and networks, including those owned and/or managed by public sector entities. Below we highlight some these key changes:

***Suspending USAC's multi-year amortization policy for non-recurring construction costs***

For funding years 2015 to 2018, the FCC suspended its policy requiring applicants to amortize over multiple years upfront charges for special construction costs. The change was implemented to encourage efficient investment in high-speed broadband infrastructure, including the deployment of fiber, by giving applicants the flexibility to plan large construction projects knowing they can recover the E-rate supported portion of any non-recurring costs upfront. Previously, E-rate applicants were required to amortize upfront or non-recurring charges of \$500,000 or more over a period of at least three years. That policy required many service providers to obtain financing for special construction projects, who would then pass along the costs of the financing to E-rate applicants in the form of larger monthly recurring costs. (Note: interest and finance charges are not eligible for E-rate support).

***Allowing applicants to pay the non-discounted portion of non-recurring construction costs over multiple years***

Schools and libraries are still responsible for paying the non-discount portion of the non-recurring charges for special construction. To help schools and libraries overcome this potential barrier, in 2016 the FCC will allow them to pay the non-discounted portion of special construction charges in installment payments of up to four years from the first day of the relevant funding year. Previously, E-rate applicants were required to pay the entire non-discounted portion of a special construction project to the service provider within 90 days of delivery of service. Schools and libraries interested in this flexible payment arrangement must specifically include this in their requests for bids.<sup>5</sup>

***Equalizing the E-rate program's treatment of lit and dark fiber***

The E-rate program supports the recurring costs of leasing lit and dark fiber. However in the case of dark fiber, the program did not previously support the modulating electronics necessary to light that fiber under Priority 1 funding (now known as Category 1). Nor did the program provide support for special construction charges for leased dark fiber beyond a school or

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<sup>5</sup> It is important to note here that it is a violation of the FCC's competitive bidding rules for service providers to offer to pay the non-discounted portion of E-rate supported services, and a violation of its gift rules and the prohibition on the receipt of rebates for services or products purchased with E-rate discounts to forgive payment of such charges or to accept such payment forgiveness. By extension, service providers that accept installment payments of the non-discounted share of E-rate supported services cannot forgive any or all such payments. However, current E-rate rules allow for state agencies to pay the full amount of an applicant's non-discounted share of E-rate supported services.

library's property line. Beginning in funding year 2016, E-rate will provide Category 1 support for special construction charges for leased dark fiber, as it does for leased lit fiber, and provide Category 1 support for the modulating electronics necessary to light leased dark fiber. However there are few additional requirements for schools and libraries seeking to obtain E-rate support for dark fiber connections:

- If a school or library intends to seek support for special construction charges associated with dark fiber, it must also solicit proposals to provide the needed services over lit fiber.
- If a school or library intends to seek support to lease and light dark fiber, the schools or library must also solicit proposals to provide the needed services over lit fiber over a time period comparable to the duration of the dark-fiber lease or IRU.
- Applicants also cannot receive E-rate funding for recurring costs associated with dark fiber until it is lit, and applicants may only receive funding for special construction charges for dark fiber if it is lit within the same funding year. To provide applicants sufficient time to complete special construction projects before a funding year begins, the program will allow infrastructure costs incurred six months prior to that funding year, provided the following conditions are met:
  - The construction takes place only after selection of the service provider.
  - A Category 1 recurring service must depend on the installation of the infrastructure.
  - The actual service start date of that recurring service is on or after the start of the funding year (July 1).
- In addition, the FCC will also allow applicants to receive up to a one-year extension to light fiber if they demonstrate that construction was unavoidably delayed due to weather or other reasons.

***Permitting self-construction of high-speed broadband networks***

Beginning in funding year 2016, E-rate will provide support for self-construction of network by school and library districts or consortia if self-construction is demonstrated to be the most cost-effective option after competitive bidding. Applicants interested in pursuing self-construction must solicit bids for both service and construction and must provide sufficient detail so that cost-effectiveness can be evaluated based on the total cost of ownership over the useful life of the facility for applicants who pursue the self-construction option. In addition, applicants who received no bids on a services-only posting are further permitted to pursue a self-construction option through a second posting for the same funding year.

As with applicants that seek E-rate support for dark fiber, applicants may only receive funding for self-construction if the facilities are built and used within the same funding year. Again, the program will allow funding for special construction charges for projects started up to six months in advance of the funding year, provided the following conditions are met:

- The construction begins only after selection of the service provider pursuant to a posted FCC Form 470 (or any successor form).
- A Category 1 recurring service must depend on the installation of the infrastructure.

- The actual service start date is after the start of the funding year (July 1).

Applicants can also receive up to a one-year extension of the service start date if they demonstrate that construction was unavoidably delayed due to weather or other reasons. In addition, pursuant to the prohibition against reselling service purchased with E-rate discounts, applicants may only receive E-rate support for services that they use. Finally, the E-rate program rules require applicants to secure all of the resources necessary to make effective use of the services they purchase.

***Offering additional E-rate discounts when States match funds for high-speed broadband construction***

To encourage additional funding from non-federal sources and to further catalyze fiber builds to schools and libraries, E-rate will now increase an applicant's discount rate for special construction charges up to 10 percent on special construction charges that are matched with state funding. The discount match will begin in funding year 2016, and will match on a one-to-one-dollar basis. Together, the additional state and E-rate program funding will reduce the money owed by applicants for what would otherwise be the applicant's non-discount share to connect schools and libraries to high-speed broadband services.

For example, an applicant with a 90 percent discount rate would receive its 90 percent discount on the E-rate eligible construction and, if the state provided an additional contribution to the project (such as 5 percent of the total project cost), the Fund will match the state's contribution (here, an additional 5 percent of the total project cost). A network with a 60 percent discount rate, would receive its 60 percent discount plus an additional 10 percent if the state were to contribute 10 percent of the cost of the build-out. States may contribute more than 10 percent funding to the project but the E-rate program will limit its match to 10 percent of the project cost (in addition to the existing program discount rate). The match will only be available for special construction charges.

In addition, the program will match funding for construction of high-speed connections to Tribal schools and libraries from states, Tribal governments, or other federal agencies. Schools operated by or receiving funding from the Bureau of Indian Education and schools operated by Tribal Nations will also be eligible to receive matched funds from these additional sources. Eligible libraries that are funded by or operated by Tribal governments will also be eligible.

Please feel free to contact us if you have any questions.