

Dark Fiber, Self-Provisioning Fiber and Special Construction

The E-rate program has three distinct terms when referring to eligible fiber:

- **Leased Lit Fiber**
- **Leased Dark Fiber**
- **Purchased “Self-Provisioning” Fiber** – An option that became eligible beginning in FY 2016 for applicants to contract for the construction and installation of fiber that they will own.

* **Special Construction of Fiber** - The network build-out costs associated with any of the three fiber options. Special construction charges are E-rate eligible and special financing rules are available to assist applicants with these large one-time costs as described below.

IMPORTANT: The rules for evaluating the cost effectiveness of dark fiber, self-provisioning, and any funding request containing special construction charges are strict, ever-evolving, and are explained below as they are currently known. Applicants considering bidding and procuring leased dark fiber, self-provisioning fiber, or any type of fiber that contains special construction should carefully review this document, as well as refer to the PIA questions they can expect to receive from USAC. Denial rates for these requests are significantly higher than traditional leased lit fiber with no special construction.

Leased Dark Fiber Overview

The E-rate program uses the term “dark fiber” to differentiate this service from lit fiber service. E-rate eligible dark fiber service is not owned by the applicant, but rather is leased from a service provider where the applicant then installs the modulating electronics and lights the fiber as a condition of receiving E-rate support for the service.

- A dark fiber IRU (indefeasible rights of use) is treated as leased dark fiber services for the purposes of the E-rate Program.
- The modulating electronics and equipment necessary to make the dark fiber service functional are eligible to be purchased with Category 1 funds.
- Special construction charges for dark fiber may include the costs of installing new fiber from the service provider’s network all the way into the applicant’s building.

The E-rate definition of dark fiber is different from the traditional industry or service-provider definition of dark fiber where “dark fiber” refers to unlit fiber that is installed but not yet in use – in other words excess fiber. Service providers frequently will install extra fiber facilities when they build out their networks in anticipation of the expansion of service and customer growth. E-rate support is not available for any fiber strands that are not going to be in use during the funding year by an eligible school or library, and these costs must be reduced from the funding request.

Self-Provisioning of Fiber Overview

Starting in FY 2016, applicants are permitted to obtain E-rate support on the costs of constructing dark fiber facilities that will be owned by the applicant when this option is found to be most cost effective compared to a lit fiber or dark fiber lease solution. The cost effectiveness must be evaluated over the entire life cycle of the facilities and must include all related costs of service and total cost of ownership.

Bidding Requirements that Govern Both Dark Fiber and Self-Provisioning Procurements

- A RFP must be issued along with posting a Form 470.
- Applicants must solicit bids for both service and construction in the same Form 470 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. Bids for lit fiber service must also be solicited at the same time that bids for self-provisioning are sought.
 - If an applicant previously posted a Form 470 for lit fiber services and did not receive any bids, then the applicant may bid only for self-provisioning in the same funding year.
- The bidding period is expected to be longer than the usual 28 days in order to ensure that service providers have sufficient time to prepare their proposals. It is recommended that there be a minimum six week bidding period.
- Applicants may only receive funding for self-construction if the facilities are built and “lit” within the same funding year.

Special Construction Charges Overview

Special construction charges are defined as construction of network facilities, design and engineering, and project management for leased lit fiber, leased dark fiber, and self-provisioning (purchasing) of their own fiber. Applicants may seek E-rate funding on the total one-time special construction costs in a single year.

Funding for all special construction projects is available for Category 1 infrastructure costs incurred up to six months prior to the start of the funding year, provided that:

- The service provider is selected pursuant to a posted Form 470;
- A Category 1 recurring service depends on the installation of the infrastructure; and
- The service start date is on or after the start of the funding year.

Upon request, applicants may also receive extensions of up to one year to complete the installation for unavoidable delays due to weather or other reasons.

As with all requests for E-rate Program funding, before requesting support for special construction, the applicant must determine that the most cost-effective solution for meeting connectivity needs has been selected. This typically means that the lowest cost option has been chosen.

Applicant Payment of Non-Discounted Share of Construction Charges

With the agreement of the service provider, applicants may pay the non-discounted portion of special construction charges in installment payments of up to four years. To qualify, applicants must include

this request on their Form 470 applications. Vendors are not required to offer this option; however vendors that are willing to offer this option must include in their proposals all material terms of the arrangement, including any interest rate they would charge the applicant and the term of the installment payment plan they are offering. Applicants that enter into installment plans must certify on Form 471 that they have the funds to pay for all required installments over multiple years.

USAC Fiber FAQs

Eligible Fiber and Services

Q1: What are the fiber services eligible for E-rate support and how do they differ?

A1: There are three types of fiber options eligible for E-rate support:

- **Leased Lit Fiber:** A fiber-based broadband service where the service provider owns and manages the network, and the E-rate applicant pays a recurring fee to have data transported over the network.
- **Leased Dark Fiber (including Indefeasible Rights of Use (IRU)):** The E-rate applicant leases capacity (i.e. a specific number of fiber strands) on a provider-owned and maintained fiber network. The applicant pays separately for modulating equipment to light the fiber in order to transmit data over that fiber. The maintenance and operations (M&O) charges related to leased dark fiber service can be the responsibility of the service provider or the applicant dependent on the terms of the contractual agreement. The applicant can negotiate M&O charges with the leased dark fiber service provider to provide these services or the applicant may obtain this service via another third-party vendor.
- **Self-Provisioned Network:** Complete applicant ownership of a high-speed broadband network. The applicant hires a vendor to construct the network or a portion of the network, and thereafter owns and maintains that network or portion, including all the fiber strands and conduit.

Note: Although included as a fiber option, applicants may seek support for self-provisioned networks using technologies other than fiber.

Q2: When are the recurring charges associated with leased lit fiber, leased dark fiber, and self-provisioned networks eligible for E-rate support?

A2: Applicants may not receive E-rate support for any recurring charges incurred before the start of the funding year (i.e., July 1).

- Applicants may only receive E-rate support for recurring charges for leased lit fiber services delivered within the funding year.
- Applicants may not receive E-rate support for recurring charges for leased dark fiber until the fiber is lit.
- Applicants may not receive E-rate support for recurring charges associated with a self-provisioned network until the network is constructed and is in use.

Q3: What is special construction?

A3: Special construction is the deployment of new fiber or upgraded facilities to E-rate eligible entities. For the purposes of the E-rate program, special construction charges are the upfront, non-recurring costs of deploying new fiber or upgraded facilities to eligible entities. Special construction consists of three components: (1) construction of network facilities; (2) design and engineering; and (3) project

management. Special construction does not include charges for Network Equipment, (i.e., modulating electronics and other equipment necessary to make a Category One service functional).

Applicants may seek funding for special construction charges in connection with leased lit fiber, leased dark fiber, and self-provisioned networks.

Q4: Can applicants incur charges for special construction in one funding year and light the fiber in a later funding year? Stated differently, can applicants request support for special construction of fiber that is not lit, or a self-provisioned network that is not used (if another technology is employed), within the funding year of my funding request?

A4: No. Applicants may only request E-rate support for special construction charges related to leased lit fiber and leased dark fiber if the fiber is lit within the same funding year (i.e., by June 30) as the funding request. Applicants may only receive E-rate support for special construction charges for a self-provisioned network if the network is constructed and is in use by the end of the same funding year as the funding request.

Applicants may not request E-rate support for special construction of fiber in one funding year if the fiber will not be lit until a later funding year. For example, an applicant may not spend two years constructing a network that will not be lit until year three, and submit E-rate funding requests for the special construction charges incurred in years one and two.

Q5: What if special construction for a fiber run or network cannot be completed in one year because of the terrain, the extensiveness of the build, or other foreseeable factors? Are there any exceptions that will let me seek special construction charges for fiber that is not lit within the same funding year as the funding request?

A5: No. There are no exceptions to the requirement to light the fiber by the end of the funding year (i.e., June 30) when the reasons are foreseeable events. Foreseeable events may include, for example, the size or complexity of the build, the terrain involved, limitations expressed by a service provider or contract terms. Applicants may receive up to a one year extension if they can demonstrate that construction was unavoidably delayed due to weather or other reasons. See Q7 for additional information.

Q6: What can an applicant do if the scope of the project might prevent them from completing construction and lighting the fiber by June 30?

A6: Applicants can call the Client Service Bureau at (888) 203-8100 to review their special construction plan. It may be possible to break up the special construction project into stages that will allow applicants to complete special construction and light the fiber for some of their eligible school and/or library locations in one year, and complete additional connections to other eligible school and/or library locations in a subsequent funding year. The special construction charges associated with the fiber installed and lit within each funding year would be eligible for support in that funding year.

Q7: What if my special construction project is delayed by an extreme weather event, a natural disaster, or other unforeseen, unavoidable factor?

A7: Applicants may request a one-year extension to complete special construction and light the fiber (or use the self-provisioned network if another technology is employed), if the applicant can demonstrate that construction was unavoidably delayed due to weather or other reasons. Examples of circumstances that may be an unavoidable delay include:

Unforeseen weather event or pattern resulting in saturated or frozen ground that prevents the work from occurring;

- Occurrence of a natural disaster;
- Scheduled delivery of required plant components does not arrive;
- USAC issues an FCDL too late for the applicant to complete special construction and light the associated fiber by the end of the funding year;
- Another unforeseeable, unavoidable event.
- To obtain a one-year extension based on an unforeseen, unavoidable construction delay, applicants must submit an extension request to USAC before the end of the funding year (i.e., June 30). Please call the Client Service Bureau at (888) 203-8100 for assistance in obtaining a one-year extension.

Q8: What is Network Equipment?

A8: Network Equipment is limited to modulating electronics and other equipment necessary to make a Category One broadband service functional. Network Equipment is eligible for Category One support.

While Network Equipment is eligible for Category One support, it is a different service than special construction. Applicants that wish to request E-rate support for special construction must seek bids for Network Equipment separately on their FCC Form 470. Additionally, on the FCC Form 471, applicants must request E-rate support for Network Equipment in a funding request that is separate from a special construction funding request.

For additional information on how to seek bids and E-rate support for Network Equipment, see Q26 below.

Q9: How do I know when on-premise equipment is Network Equipment eligible for Category One support or an internal connection eligible for Category Two support?

A9: In most cases, the connection providing Category One broadband connectivity to a school would terminate into one device, and that device would serve as a demarcation point between the last mile circuit and the school LAN. In that case, the terminating router or switch would be Network Equipment eligible for Category One support, because without it, the needed broadband connectivity could not be delivered to the school (i.e., the Category One broadband service would not function). The mere fact that the device also interfaces with the school's LAN and ultimately enables the LAN's connectivity does not preclude the school from requesting Category One support for the cost of the device.

For example, fiber to a school may terminate into a router that is then connected to the school's LAN via a series of switches. The terminating router or switch must interface with the LAN for the LAN to receive connectivity. The router into which the Category One fiber service terminates would be Network Equipment. It is necessary so that Category One broadband service to the school can function. That remains true even though the router is connected to the school's LAN via a series of switches. The series of switches, however, would not be Network Equipment. The purpose of those devices is to enable the

functionality of the LAN. They are not necessary to deliver Category One broadband service to the school.

Note that the demarcation points for different schools and libraries may vary based on the configurations of their networks. If you have questions about whether equipment involved in a particular network configuration would constitute Network Equipment eligible for Category One support or internal connections eligible for Category Two support, please contact the Client Service Bureau to discuss the specific facts necessary to make that determination.

Q10: If on-premise equipment performs both Category One and Category Two functions, and it is determined that it qualifies as Category One Network Equipment, does an applicant have to cost-allocate anything out of their funding request due to the Category Two functionality?

A10: Cost allocation is not required if: (1) purchasing the device is the most cost-effective means of making the Category One broadband service to the school function; and (2) a price for the components of the device that enable the school's LAN to receive connectivity (i.e., the Category Two function) cannot be isolated from the price of the components that enable broadband connectivity to the school (i.e., the Category One function). Under those circumstances, the components of the device that interface with the school's LAN and enable the LAN's connectivity would be ancillary, and the school may seek a discount based on the full cost of the terminating device in a Category One funding request.

If, however, a price for the components of the device that enable the school's LAN to receive connectivity can be isolated from the price of the components that enable the Category One service, those charges should be cost allocated out of the Category One funding request.

Q11: May I request E-rate support for new Network Equipment and Maintenance and Operations (M&O) charges for an existing leased dark fiber or self-provisioned network?

A11: Yes. Applicants that currently own a leased dark fiber or self-provisioned network may obtain Category One support for new Network Equipment (i.e., an equipment refresh or upgrade) and Maintenance and Operations (M&O) charges for those existing networks. See Q26 and Q27 for information on how to request bids and E-rate support for those charges.

Q12: So, to recap, of the charges I may incur for each type of eligible fiber service, which are eligible for E-rate support?

A12: Applicants may request E-rate support for the following charges (by type of fiber service):

| Leased Lit Fiber | Leased Dark Fiber* | Self-Provisioned Networks* |
|---|---|---|
| <ul style="list-style-type: none"> • Monthly recurring charges • Special construction charges • Basic Installation charges | <ul style="list-style-type: none"> • Recurring dark fiber lease or IRU payments • Maintenance and operations charges • Special construction charges • Basic Installation charges • Network Equipment | <ul style="list-style-type: none"> • Maintenance and operations charges • Special construction charges • Network Equipment |

* Remember that applicants seeking bids for leased dark fiber and self-provisioned networks must seek bids for their Internet access service separately in an FCC Form 470 posting and seek E-rate support for Internet access service in a separate FCC Form 471 funding request.

See also Qs 14-28 for information about how to request bids for these services through an FCC Form 470 posting and Qs 30-38 for how to request E-rate support for the charges through an FCC Form 471 filing.

Q13: I understand that special construction charges incurred after the close of the funding year (i.e. June 30) are ineligible for E-rate support. Is it possible for me to start work early and incur charges for special construction and Network Equipment purchases incurred prior to the July 1 start of the funding year?

A13: Applicants may begin special construction six months prior to the start of the funding year (i.e., January 1), and seek E-rate support for the charges incurred, provided that: (1) construction begins after selection of a service provider pursuant to a valid competitive bidding process; (2) a Category One recurring service depends on the installation of the infrastructure; and (3) the service start date is on or after the start of the funding year.

In addition, if an applicant opts to begin special construction during the six months prior to start of the funding year (i.e., January 1), applicants may also request E-rate support for Network Equipment installed during the course of that work.

Applicants are cautioned, however, that if they choose to incur charges for either special construction or Network Equipment before receiving funding commitment decision letters for those funding requests, they assume the risk that their funding requests may be denied or reduced.

Requesting Bids for Fiber Services – FCC Form 470 & Requests for Proposal (RFPs)

Q14: Are there any competitive bidding requirements applicable to leased dark fiber?

A14: Applicants who are requesting E-rate support for leased dark fiber must also seek bids for leased lit fiber in an FCC Form 470 posted in E-rate Productivity Center (EPC).

Q15: If I have a pre-existing, multi-year dark fiber lease or an IRU, do I need to post a new FCC Form 470 for the current funding year and request competitive leased lit fiber bids?

A15: Leased dark fiber has been eligible for E-rate support since Funding Year (FY) 2011. If the applicant entered a multi-year dark fiber lease or IRU in a prior funding year, pursuant to an E-rate-compliant competitive bidding process, and the lease or IRU has not expired, the applicant is not required to post an FCC Form 470 prior to requesting E-rate support for continued service under that multi-year agreement. When that dark fiber lease or IRU expires or otherwise terminates, and the applicant posts an FCC Form 470 seeking bids for a new service contract, the applicant will be required to comply with all applicable competitive bidding rules at that time. For instance, if the applicant seeks bids for another dark fiber lease or IRU at that time, the applicant will be required to seek bids for the needed connectivity via leased lit fiber, as well.

Q16: What is the competitive bidding requirement applicable to self-provisioned networks?

A16: Applicants requesting E-rate support for a self-provisioned network must also seek bids for the services provided over third-party networks in the same FCC Form 470 posted in EPC.

If an applicant has already sought bids for services provided over third-party networks in an FCC Form 470, and did not receive any bids in response, the applicant may post a second FCC Form 470 seeking bids for a self-provisioned network only (i.e., the applicant does not need to repeat a request for bids for services provided over third-party networks).

Q17: Is "services provided over third-party networks" a technology-neutral standard? What if I'm only interested in bids for a fiber service?

A17: Self-provisioned networks are a technology-neutral eligible service. Applicants may self-provision a fiber network, but applicants may also self-provision networks using other technologies (i.e., fixed microwave), or a mix of fiber and other technologies. In light of this, the FCC adopted a technology-neutral competitive bidding standard for self-provisioned networks – service provided over third party networks.

If an applicant specifies a requested bandwidth that other providers can provide, the technology-neutral competitive bidding standard expands the competitive bidding pool, and helps to ensure that applicants requesting E-rate support for self-provisioned networks only do so when it is the most cost-effective service option to meet their connectivity needs. It is possible that based on the applicant's bandwidth specifications that fiber may be the only option for receiving the requested bandwidth.

Q18: Are there any competitive bidding requirements applicable to leased lit fiber?

A18: If an applicant is only interested in seeking bids for leased lit fiber, they may do so by posting an FCC Form 470 in EPC that only specifies leased lit fiber as the requested service.

Q19: How do I request bids for fiber services? Do I have to attach a separate Request for Proposal (RFP)?

A19: As with all other eligible services, applicants must request bids for fiber services by submitting the FCC Form 470. Please see the FCC Form 470 user guide for information about how to properly identify the fiber services for which you are seeking bids.

Although the E-rate rules do not specifically require applicants to prepare a separate RFP for any eligible service, applicants seeking bids for leased dark fiber services, self-provisioned networks or utilizing the "Other" option based on the information required, will need to upload an RFP in EPC. Please see the FCC Form 470 user guide for additional information.

Q20: What if I don't seek bids for fiber on the FCC Form 470 itself, but I do request fiber bids in an attached RFP? Does that satisfy E-rate Program rules requiring a fair and open competitive bidding process?

A20: No. The FCC Form 470 is required to open and start the competitive bidding process in the E-rate Program. Any service for which applicants are requesting E-rate support must be identified on their FCC Form 470. It is not sufficient if the service is identified in their RFP, because service providers may not look beyond the posted FCC Form 470 to see the additional request in the RFP. For example, if an applicant's FCC Form 470 seeks bids for leased dark fiber and leased lit fiber, and their RFP also includes a request for bids for a self-provisioned network, the applicant may not receive E-rate support for a self-provisioned network as this service was not included in their FCC Form 470.

Q21: Can the applicant state that they would prefer to self-provision a network over a leased lit fiber or leased dark fiber solution? Can the applicant state that they would prefer a leased dark fiber solution over a leased lit fiber or self-provisioning a network?

A21: No. As with all other E-rate eligible services, competitive bidding for fiber services must be open and fair. That means an applicant may not specify a preference for any of the services for which it is required to seek bids in an FCC Form 470 or an RFP, or through another medium during the competitive bidding process. For instance, if an applicant seeks bids for leased dark fiber, they are also required to seek bids for the requested connectivity via leased lit fiber. The applicant may not state that, although it is requesting bids for both types of fiber service, they would prefer leased dark fiber solutions over leased lit fiber solutions. Similarly, applicants may not state a preference for self-provisioning a network over a service provided over third-party networks.

Q22: If I post a separate RFP, should I identify all of the services for which I am seeking bids in that RFP, or is it enough to just have those services identified in the FCC Form 470?

A22: Applicants must identify all services for which they are seeking bids on their FCC Form 470. The RFP may contain additional detail about the connectivity needs that would be useful to service providers submitting bids for the various options. To avoid the appearance of a preference for one type of service over another, USAC recommends that applicants identify all of the services for which they are requesting bids in any RFP that they attach to their FCC Form 470, as well. For example, if an applicant seeks bids for a self-provisioned network, their RFP should note that they are seeking bids for services provided over third-party networks, as well.

Q23: What kind of information should I include in an FCC Form 470 and/or RFP seeking bids for fiber services?

A23: The FCC Form 470 and RFP should provide enough information to request comprehensive proposals with line-item cost details from service providers, but not so much information that the applicant states a preference for a particular connectivity solution, a particular construction route, or particular method of construction. The idea is to communicate connectivity needs to service providers in a manner that allows the providers to ascertain and propose the most cost-effective way that they can provide the requested services to the applicant, with line-item cost details.

For instance, an FCC Form 470 and RFP seeking bids for fiber services should generally identify:

- All of the connectivity solutions for which the applicant is seeking bids (e.g., leased lit fiber, leased dark fiber, self-provisioning, services over a third-party network). Applicants should make sure those solutions match the drop-down options they have selected on FCC Form 470.
- Location of the recipients of service to be connected.
- Desired term of agreement with provider (for leased lit and leased dark fiber).
- Bandwidth sought (may be stated in a range).
- Desired bandwidth expansion over time and request for pricing.
- Any permissible disqualification factors.
- Required deadlines.
- Any state or local procurement requirements.
- Bid evaluation criteria.
- Any templates that bidders should use and other bid submission instructions (including instructions on how to ask questions).

If an applicant is seeking bids for a self-provisioned network, or knows that their request for leased lit fiber or leased dark fiber will require special construction to the recipients of service specified, USAC would also expect that the applicant's RFP would request that service providers specify in their proposals:

- Route assessment, maps, ROW access and/or easement requirements.
- Complete specifications for the special construction project as a whole, including whether fiber will be buried, strung through conduit (existing or newly installed), and/or strung aerially on poles (existing or newly installed).
- All terms and conditions associated with the completion of the work.
- Invoice-level detail specifying quantities and costs associated with the special construction project as a whole (e.g., number and cost of fiber strands installed, pole attachment make-ready costs, trenching and/or boring costs, costs and quantities with respect to any conduit, hand holes, vaults, splicing).
- Charges for engineering, environmental assessments, traffic control and permits, surveys, testing, and the like.
- Again, these are details that service providers should provide to applicants. Applicants should not attach pre-engineered plans or otherwise specify the route, type of construction, or plant components they would like service providers to use. Service providers are likely to be in the best position to propose the most cost-effective route to applicants.

That said, applicants should feel free to include general, high-level information in RFPs that they think may be helpful to service providers putting together a proposal (e.g., information about the terrain,

existing facilities on school/library property that can be leveraged, compatibility requirements with existing school/library facilities). In addition, while applicants should not attach pre-engineered construction plans for a special construction project they would like service providers to bid on, they may attach maps or plans that provide information about school/library property and existing infrastructure in the area.

If applicants have specific questions about how to formulate their RFP, they should call the Client Service Bureau at (888) 203-8100 or enter a customer service case in EPC.

Q24: What if I do not expressly request bids for special construction in conjunction with my FCC Form 470 seeking bids for a fiber service? Can a service provider still include special construction charges in their proposal?

A24: In the case of leased lit fiber and leased dark fiber, yes. The E-rate rules do not expect applicants to always know whether and to what extent special construction may be required to connect eligible recipients to a service provider's network. So, if applicants post an FCC Form 470 seeking bids for bandwidth for a specified list of recipients of service, and service providers respond with proposals that include special construction that is fine.

If applicants determine that a proposal that includes special construction as the most cost-effective option for their connectivity needs, however, applicants are advised that they will be required to answer the same questions during PIA review as applicants that specifically sought bids for special construction.

Special construction is a necessary component for self-provisioning a new network or a new part of an existing network. Accordingly, all FCC Form 470s seeking bids for a self-provisioned network should specifically seek bids for special construction.

Q25: Do I need to do anything during the competitive bidding process to indicate that I would like service providers to offer an installment payment option for my non-discount share of special construction charges?

A25: Yes. Applicants interested in an installment payment agreement for their non-discount share of eligible special construction charges must indicate that interest on their FCC Form 470. When applicants are filing their FCC Form 470, on the "Services Request" page in EPC, they should look for a check box under the "Narrative" box for this option.

See Q35 for additional information on installment payment arrangements for an applicant's non-discount share of eligible special construction charges.

Q26: How do I seek bids for Network Equipment for a leased dark fiber or a self-provisioned network?

A26: As with all other eligible services, applicants must request bids for Network Equipment. Applicants should reference the FCC Form 470 user guide for information about how to specify that they are seeking bids for Network Equipment in an FCC Form 470.

Q27: How do I seek bids for Maintenance & Operations (M&O) services for a leased dark fiber or self-provisioned network?

A27: As with all other eligible services, applicants must request bids for Maintenance & Operations (M&O) services using the FCC Form 470. Applicants should reference the FCC Form 470 user guide for information about how to specify that they are seeking bids for M&O services.

Q28: If I'm seeking bids for Network Equipment or Maintenance and Operations (M&O) services for an existing leased dark fiber or self-provisioned network, what are the competitive bidding requirements?

A28: Applicants seeking E-rate support for Network Equipment or M&O services for an existing leased dark fiber or self-provisioned network do not need to seek competitive bids for leased lit fiber (in the case of existing leased dark fiber) or services provided over third-party networks (in the case of self-provisioned networks). Applicants do have to file an FCC Form 470 seeking competitive bids for the Network Equipment and M&O services. Applicants should reference the FCC Form 470 user guide for information about how to specify that they are seeking bids for these services.

Selecting the Most Cost-Effective Service Offering

Q29: How do I determine the elements for a cost comparison between leased dark fiber vs. leased lit fiber; leased dark fiber vs. self-provisioned networks; and self-provisioned networks vs. services provided over third party networks?

A29: When comparing the cost effectiveness of the three fiber service offerings – leased lit fiber, leased dark fiber, and self-provisioned networks – the expected useful life of the asset is a key consideration when comparing the combined upfront and recurring costs. To do this, applicants should determine a defensible period of time for the comparison, based on their anticipated use of the assets. Depending on a variety of factors, an applicant may expect to recover their costs for a self-provisioned network or leasing and lighting dark fiber in five, seven, ten, or, in some circumstances, 20 years.

Applicants should then identify a specific and comprehensive total cost for each of the responsive proposals received:

- Self-Provisioned Networks: Consider all costs of owning, operating, and maintaining a network (e.g., recurring fees for maintenance and operations, Network Equipment).
- Leased Dark Fiber: Consider all of the costs of leasing, lighting, maintaining, and/or operating the dark fiber.
- Leased Lit Fiber: Comparison should project demand for bandwidth over the comparison period and how costs of bandwidth will vary over time.

Once that is done, applicants should divide the total cost for each option by the number of years in their comparison period to determine annual cost. Compare that annual cost against the annual cost of other responsive proposals received over the duration of the defensible time period. From this comparison, applicants should provide documentation of their findings to their reviewer via EPC with a narrative that summarizes the logic of the comparison. Presenting comprehensive comparison data is an important piece of the cost-effectiveness review process. By providing detailed information it helps the reviewers assess the validity of the cost-effectiveness of a solution more efficiently.

Applicants should be prepared to explain any assumptions made, such as how they set their comparison period, and cost for Network Equipment for leased dark fiber or self-provisioned fiber and any equipment refresh needs.

Preparing a Fiber Funding Request (FCC Form 471)

Q30: What are the different types of funding requests that I may need to include in my FCC Form 471 if I request E-rate support for leased dark fiber or a self-provisioned network?

A30: The funding request options available to applicants seeking support for leased dark fiber and self-provisioned networks when filing FCC Form 471 are listed below. An applicant does not have to file each type of funding request when seeking support for leased dark fiber or a self-provisioned network (e.g., an applicant that already owns Network Equipment and is not seeking support for the purchase of Network Equipment would not file a Network Equipment funding request). Applicants should be prepared to explain why they have not filed certain funding requests during review of the fiber application (e.g., when seeking funding for special construction applicants should be prepared to explain why they are not requesting Network Equipment necessary to light fiber).

Self-Provisioning FRN Types

- Maintenance and Operations (M&O) (use when M&O is contracted for separately from Network Equipment)
- Network Equipment (use when Network Equipment is contracted for separately from M&O)
- Network Equipment/M&O (use when a single contract is signed for Network Equipment & M&O services)
- Special Construction

Leased Dark Fiber FRN Types

- Data Transmission and/or Internet Access (use for recurring dark fiber lease/IRU payments)
- Maintenance and Operations (use when M&O contracted for separately from Network Equipment)
- Network Equipment (use when Network Equipment is contracted for separately from M&O)
- Network Equipment/M&O (use when a single contract for Network Equipment & M&O services)
- Special Construction

Please see the FCC Form 471 user guide for information on how to complete and submit these funding requests in EPC.

Q31: What types of funding requests might an applicant file when seeking support for leased lit fiber?

A31: An applicant would use the leased lit fiber FRN type to seek E-rate support for leased lit fiber. If the applicant is seeking support for special construction associated with leased lit fiber, they may opt to do so using a dedicated special construction FRN.

Q32: Do I have to include all funding requests related to the same requested service in one FCC Form 471?

A32: Funding requests seeking support for Network Equipment and Maintenance & Operations (M&O) charges associated with lighting leased dark fiber must be included in the same FCC Form 471 as the funding request seeking support for the dark fiber lease or IRU. Given that the review of all of the costs associated with a fiber application will occur during the PIA process, it is recommended that applicants include all related funding requests in the same FCC Form 471. For instance, if an applicant is seeking E-rate support for a self-provisioned network, USAC recommends that the applicant include any funding requests for Network Equipment and Maintenance & Operations (M&O) in the same FCC Form 471 as the special construction funding request.

Q33: What helpful information should I put in the narrative of a special construction funding request?

A33: It is recommended that applicants use the narrative field in the FCC Form 471 to:

- Describe the fiber solution selected (e.g., "This funding request is for special construction charges necessary to connect X Elementary School, Y Middle School, and Z Middle School to our existing leased dark fiber WAN").
- Identify any related FRNs (e.g., "Support for the recurring payments required by our existing dark fiber lease is requested in FRN 12345678. We are also requesting support for recurring Maintenance & Operations charges in FRN 910111213. We seek support for the Internet access provided over the leased dark fiber in FRN 87654321").
- Briefly explain why the requested service was deemed to be the most cost-effective option of all the bids received.
- If applicants are changing the manner in which their schools and libraries receive service (e.g., they previously used a leased lit fiber service, but are switching to a leased dark fiber solution), applicants should describe their existing service and its capacity.
- Explain the plan for transitioning services if an applicant plans to light new fiber after the start of the funding year.
- Describe any variables that may help a reviewer understand an application, such as why the applicant is not requesting Network Equipment to light newly constructed fiber.

Q34: Am I still required to amortize large non-recurring capital costs over a period of three years for charges of \$500,000 or greater?

A34: The FCC has permanently extended the amortization requirement.

Q35: Can you explain the requirements regarding installment payments for the non-discount share of special construction charges?

A35: E-rate Program rules require applicants to pay the non-discount share of E-rate supported services within 90 days of receipt of service. Applicants may, however, request that service providers allow them to pay their non-discount share of costs for eligible special construction services in installments over up to four years from the first day of the relevant funding year. To take advantage of this option, applicants must have indicated an interest in an installment payment arrangement in their FCC Form 470.

Service providers are not obligated to offer an installment payment option to applicants if one is requested. However, if a service provider chooses to offer an installment payment plan, they must disclose the material terms, including the interest rate and the term of the payment plan, in their bid submission.

Applicants that enter an installment payment arrangement for the non-discount share of eligible special construction charges must also be prepared to provide details about the payment plan in their special construction funding requests, including: (a) the total amount financed; (b) the term of the agreement; and (c) the annual interest rate.

Q36: Can I obtain additional E-rate support to match funding that I receive from my state, Tribal government, or other federal agency for special construction charges?

A36: If a state provides eligible schools and libraries with funding for special construction charges for high-speed broadband that meets the FCC's bandwidth targets, the E-rate Program will provide a one-to-one dollar match up to an additional ten percent discount in Category One support. For Tribal schools and libraries, the E-rate Program will also match special construction funding provided by states, Tribal governments, or other federal agencies for special construction on a one-to-one basis, up to an additional ten percent discount in Category One support. However, total support for a special construction project through the E-rate Program including matching funds from a state, Tribal government, or other federal agency may not exceed 100 percent.

Q37: What will USAC evaluate to determine if I may receive additional E-rate discounts to match state, Tribal, or federal funding for my special construction funding request?

A37: An applicant seeking additional E-rate discounts to match state funding for special construction must submit information with its FCC Form 471 that USAC will use to determine: (a) whether the state funding is from an eligible source; (b) that any terms and conditions associated with the state funding are not in conflict with E-rate rules; (c) the appropriate calculation of the additional E-rate discount, if any; and (d) whether the project meets the Commission's connectivity targets.

For instance, an applicant should be prepared to submit documentation to USAC about the specific state legislation that appropriated the state funds at issue, or the state, Tribal government, or federal agency legislation for a Tribal school or library that has committed the funds for the applicant's special construction project. The applicant should also be prepared to submit documentation verifying that the state funding has, in fact, been committed for the applicant's special construction project, and specifying the amount of the commitment and any terms and conditions associated with the commitment. These requirements also apply to Tribal schools and libraries that are seeking matching funds based on funding from a state, Tribal government, or other federal agency.

Q38: Does USAC have a list of state, federal, or Tribal sources of funding that have been deemed eligible for the purposes of obtaining additional E-rate discounts for special construction charges?

A38: Yes. The list of programs that have been approved as eligible sources of funding for the E-rate matching funds for special construction is available [here](#). The evaluation of these programs is based on general information available at the time of review, and final approval for all E-rate matching funds is

based on compliance with E-rate Program rules and a detailed review of the special construction funding requests.

Applicants, states, Tribal governments, and other federal agencies interested in having their programs reviewed and added to USAC's State Match webpage should send detailed information about the programs to USAC's Customer Service Bureau by calling (888) 203-8100.

Program Integrity Assurance (PIA) Review

Q39: What kind of information should I be prepared to provide to USAC to demonstrate that I have selected the most cost-effective solution for my connectivity needs?

A39: When applicants are preparing their response to demonstrate the cost-effectiveness of their service selection, they should work with their service provider to provide a comprehensive explanation that details the cost breakdown of their selection versus the other service options. All associated costs that are related with the services that are being compared must be included in the cost comparison. For example, if considering a leased dark fiber solution, the charges associated with leasing the fiber, along with any modulating equipment that is needed to light the fiber, and any maintenance and operations cost, should be included in the cost comparison. Applicants should also account for any equipment refreshes that would be needed for the time span that is being evaluated. Applicants should also present detailed documentation along with the cost-effectiveness evaluation instead of summary data. If applicants have questions regarding determining the cost-effectiveness of their service selection, they should enter a customer service case in EPC or contact the Customer Service Bureau at (888) 203-8100.

Q40: I understand that USAC might ask very technical and detailed questions about my fiber build. I'm not an engineer or techie. Is there someone who can help me understand the information that the questions are asking for and whether I'm providing USAC with the correct information?

A40: Yes. If applicants have inquiries regarding the questions they may receive from USAC during review of an application, they can open a customer service case in EPC that will be routed to USAC's Fiber Team to provide guidance. The team is available to help applicants understand the information that is being requested about their fiber build project.

Q41: I understand the questions, but I do not have all of the information that PIA reviewer has requested. Do I still have to respond to the questions? If so, what do I do?

A41: Applicants are required to respond to all PIA review questions, even if they are requesting information that is not currently in the applicant's possession. The failure to respond to the PIA review questions may result in the denial of an applicant's funding request.

If a question asks for information or documentation about a fiber service or project that is not currently in an applicant's possession, they should request the information or documentation from their service provider. If the service provider does not understand the information request, applicants should ask their service provider to call the PIA reviewer to discuss the questions directly. Applicants do not have to

be on the line when this call occurs, but participating in the call may help them better understand why the information is being requested, and prepare applicants for future PIA reviews.

If the service provider does not provide the required information in response to an applicant's request, applicants should let their PIA reviewer know right away that they have requested the information and are having difficulty obtaining it. The PIA reviewer may reach out to the service provider directly to seek the requested information.

Invoicing

Q42: May I submit "milestone" invoices in connection with my special construction project, or do I need to wait until the project is complete and the new fiber is lit to submit an invoice to USAC?

A42: Yes, as is the case with all E-rate eligible costs, applicants that have received a funding commitment may submit invoices for eligible special construction expenses at any point during the funding year. If, however, the fiber is not lit in that year, the applicant may need to reimburse the fund for the special construction charges.

General Tips

Q43: Does USAC have representatives who can explain the rules and help provide basic guidance as we consider the self-construction option?

A43: Yes. E-rate participants that need additional information or guidance can call the Client Service Bureau at (888) 203-8100 to ask questions or receive other assistance.