

Project Information

Company: Cable South/Swyft Fiber

Project Description

General Info

Project #:	101
Project Name:	Concordia
Total Project Cost:	7,288,600.00
Total project cost per prospective broadband recipient:	1,501.57
Infrastructure cost per prospective broadband recipient:	1,501.57
Number of households to be served:	4679
Number of businesses to be served:	175
GUMBO cost per prospective broadband recipient:	647.05
Number of GUMBO households to be served:	4679
Number of GUMBO businesses to be served:	175
General Location/Parishes:	Concordia
Base Speed (Minimum Download/Upload):	100:100 Mbps
Supported Scalability Speeds (Minimum Download/Upload):	10,000x10,000 Mbps

Qualifications and Experience:

Provide the following details:

- Number of years the applicant has provided internet services;
 - A history of the number of households and consumers, by year of service, to which the applicant has provided broadband internet access, as well as the current number of households to which broadband internet access (at least 25:3 Mbps) is offered;
 - The number of completed internet service infrastructure projects funded, in part, through federal or state grant programs, prior to the date of application submittal;
 - Whether the applicant has ever participated in an internet service infrastructure project funded, in part, through federal or state grant programs, and if so, for each project, the nature and impact of the project, the role of the applicant, the total cost of the project, and the dollar amount of federal or state grant funding;
 - The number of penalties paid by the applicant, a subsidiary or affiliate of the applicant, or the holding company of the applicant, relative to internet service infrastructure projects funded, in part, through federal or state grant programs, prior to the date of application submittal; and
 - The number of times the applicant, a subsidiary or affiliate of the applicant, or the holding company of the applicant has ever been a defendant in any federal or state criminal proceeding or civil litigation as a result of its participation in an internet service infrastructure project funded, in part, through federal or state grant programs, prior to the date of application submittal
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Qualifications and Experience Summary Information: 1. Number of Years the applicant has provided internet services. --CableSouth was formed in 2008 and started providing service in 2009. 13 years total providing internet service 2. History of the number of households and consumers, by year of service, to which the applicant has provided broadband internet access, as well as the current number of households to which broadband internet access (at least 25:3 Mbps) is offered: -We do not have the historical beyond 2020 as we purchased the company in November of 2020. Currently in 2021 we provide service to 9,000 households and we offer service to 65,000 households. 3. The number of completed internet service infrastructure projects funded, in part, through federal or state grant programs, and if so, for each project, the nature and impact of the project, the role of the applicant, the total cost of the project, and the dollar amount of federal or state funding -To date we have completed 10 state or federal granted infrastructure projects. See attached spreadsheet with requested details of each. We have 4 additional projects set for completion 1st qtr of 2022. 4. The number of penalties paid by the applicant, a subsidiary or affiliate of the applicant, or the holding company of the applicant, relative to internet service infrastructure projects funded, in part, through federal or state grant programs, prior to the date of application submittal: -ZERO 5. The number of times the applicant, a subsidiary or affiliate of the applicant or holding company of the applicant has ever been a defendant in any federal or state criminal proceeding or civil litigation as a result of its participation in an internet service infrastructure project funded, in part through federal or state grant programs, prior to the date of the application submittal: -ZERO

Financial Background:

- Provide five years of financial statements, pro forma statements, or financial audits to ensure financial and organizational strength regarding the ability of the applicant to successfully meet the terms of the grant requirements and the ability to meet the potential repayment of grant funds. If the applicant has been in business for less than five years, provide documentation for the number of years in business
- Indicate whether the applicant, a subsidiary or affiliate of the applicant, or the holding company of the applicant has ever filed for bankruptcy

Cable South Media nor a subsidiary or affiliate of Cable South has never filed for bankruptcy. Copies of historical 2017, 2018, 2019 financials audits are uploaded. We took over in November 2020 so 2020 nor 2021 are closed yet for there to be a completed audit. We are also providing projections going forward adding in the business direction change from CATV to Broadband along with the RDOF funding/expansion

Partnerships:

Provide the identity of any partners or affiliates if the applicant is proposing a project for which the applicant affirms that a formalized agreement or letter of support exists between the provider and one or more unaffiliated partners where the partner is one of the following:

- a separate private provider of broadband service, requiring a formalized agreement; or
- a nonprofit or not-for-profit, or a for-profit subsidiary of either, and the applicant is:
 - being allowed access and use of the partner's infrastructure, on special terms and conditions designed to facilitate the provision of broadband services in unserved areas, requiring a formalized agreement;
 - utilizing a matching financial and/or in-kind contribution provided by one or more partners, requiring a formalized agreement; or
 - a parish, municipality, or school board, or any instrumentality thereof, may qualify as a nonprofit for the purposes of the GUMBO grant program. Letters of support by a parish, municipality, or school board, or any instrumentality thereof, supporting an application may be submitted as part of an application. A letter of support does not require a formalized agreement.
- Provide a brief narrative explaining how the partnership or affiliation will facilitate

deployment and reduce cost per prospective broadband recipient. For applications or project areas where the nonprofit or not-for-profit partner provides only matching financial support, that information can be documented in the budget section within the relevant application or project area.

We have multiple letters of support from Concordia Parish Government, towns, school district or similar. Proof of letters of support and/or financial match documents are added attachments to this section of the application. Community support at the parish, city, town and businesses community allows for quicker deployment/construction of the network into the community due to buy-in from the parish as a whole and agreements to work together on preventing road blocks and or red tape getting in the way.

For work being performed by Hudson Initiative or Veterans Initiative qualified applicants or contractors, provide documentation and/or a formalized agreement.

see formalized agreements in Partnership documentation uploads. 10 total agreements.

Project Area

Assessment of the Current Level of Broadband Access in the Proposed Deployment Area

Describe the current level of service within the area and provide the data source or methodology used to capture this information. Raw data may be submitted as part of the assessment. If data is available to support differences between advertised and transmission speeds, applicants may also submit applications for areas where transmission speeds are less than 25:3 Mbps.

See attached Assessment Document

Services

Provide a description of service options to be provided:

Service Name	Upload/download speed	Date of 1st Availability	Data Cap	# of recipients	Price
Bronze	100x100 Mbps	1-13-2023	None	4873	68.90
Silver	250x250 Mbps	1-13-2023	None	4873	88.80
Gold	1,000x1,000 Mbps	1-13-2023	None	4873	99.50

Marketing

Provide documentation for applicant engagement to connect consumers with community education forums, multimedia advertising, and marketing programs.

In developing its GUMBO plan, Applicant worked with Parish leaders, including schools and non-profits, to introduce and expand digital equity and digital literacy support, consistent the approaches being developed by the Broadband Office. Applicant has significant experience working school systems, and it expanded this activity as the FCC created its Emergency Connectivity Fund (ECF). Applicant is expanding its own efforts to curate materials and develop programs to help community leaders promote these new opportunities for members of low-income families. In 2022 Applicant will be rebranding its Internet offerings in many markets and will incorporate new information aimed directly at expanding digital education and information programs for each community we serve.

Adoption

Provide documentation that shows low-income household service offerings, digital equity or literacy support, or programs or partnerships to provide these services. The applicant should also indicate current participation in, or plans to, accept the federal Lifeline subsidy.

Applicant is a participant in the FCC's Emergency Broadband Benefit program. As that program transitions to the new Affordable Connectivity Program in 2022, Applicant will transition its program offerings as well. In developing its GUMBO plan, Applicant has worked with Parish leaders, including schools and non-profits to look for ways to introduce and expand digital equity and digital literacy support. Applicant has significant experience working school systems, and it expanded this activity as the FCC created its Emergency Connectivity Fund (ECF). Applicant is expanding its own efforts to curate materials and develop programs to help community leaders promote these new opportunities for members of low-income families.

Community Support

Evidence of support for the project from citizens, local government, businesses, and institutions in the community, including letters of correspondence from citizens, local government, businesses, and institutions in the community that supports the project

Letters of support uploaded to partnerships section

Local Workforce

Documentation of a workforce plan prioritizing the hiring of local, Louisiana resident workers, to include a signed letter of intent with a post-secondary educational institution that is a member of the Louisiana Community and Technical College System, containing an obligation upon the applicant, and contractors or subcontractors of the applicant, to put forth a good-faith effort to hire, when possible, recent graduates of broadband-related programs.

Cable South management team has over 20 years experience operating in La and hiring local high school, technical college and university graduates. Due to time limitations we were not successful in getting a fully flushed out workforce plan with an LCTC system but we did get a letter of support and a verbal commitment to be worked on in 2022.

Technical Report

Reporting Requirements

Explain in technical detail the technologies to be used in the proposed project and the broadband transmission speeds offered to prospective broadband recipients as a result of the project. If it would be impracticable, because of geography, topography, or excessive cost to design a broadband infrastructure project that would deliver 100:100 Mbps, the applicant must provide an explanation. Transmission speeds of 100:20 Mbps are the minimum allowable under this grant program.

Concordia GUMBO proposed project is a mixture of DOCSIS 3.1 Remote PHY with High Split along with new areas being built with XGS PON. Data on both copied and pasted below. Both are capable of 100:100, GIG:GIG, and faster. All new fiber builds are 100% underground where ground access is available. DOCSIS 3.1 Allows for 1+ Gbps Symmetrical Speeds Uses existing Cable Infrastructure Implements the use of OFDM and Higher Orders of Modulation Is a Standards-based technology deployed by numerous operator and available from several Vendors The Harmonic CableOS Solution Allows for "Full

Spectrum” DOCSIS 3.1 6x OFDM Channel Blocks @ 4k modulation = 10.9 Gbps Downstream 2x OFDMA Channel Blocks @ 1k modulation = 1.5 Gbps Upstream Greater than 1 Gbps symmetrical speeds are attainable at lower modulations Adding DOCSIS 3.0 Single Carrier Qams adds even more bandwidth available to subscribers (Each group of 32 SC-QAMs = an additional 1.2 Gbps of BW Available and widely deployed globally today Future DOCSIS Technologies allow for 10 Gbps Symmetrical DOCSIS 4.0 implements addition spectrum and ‘overlap’ capabilities for these improved speeds Uses same cable infrastructure with some component upgrades Will start becoming available in the 2023 timeframe Harmonic is a leader in these future technologies FTTX Technology and Design Methodology Cable South Media III (“Cable South”) proposes Fiber-to-the-home (FTTH) architecture for the last mile. FTTH technologies come in two standards; Active and Passive. Cable South plans to use Calix passive optical networks and will employ Gigabit Passive Optical network (“GPON”) architecture for its FTTH, employing 1:32 distributed splits. Passive Optical Network (PON) is a point to multipoint technology that connects an Optical Line Terminal (OLT) to many Optical Network Terminals (ONTs) or Optical Network Units (ONUs). PON networks utilize passive splitters between the OLT and ONT, and offers service providers flexibility in designing the network. The OLT broadcasts traffic downstream to every ONTs and and each ONT only reads the content that is addressed to it. Encryption is used to prevent ONTs from eavesdropping on traffic not addressed to them. Quality of Service (QoS) features are used to ensure proper service prioritization and delivery. Oversubscription on a GPON network with a 32 way split is 12.8 to 1 if all customers are sold 1Gbps service.(32 Gigabits / 2.5 Gigabits). Cable South will deploy Calix E7-2 chassis within nodes it places, from which it will serve the funded passings. Combined, Cable South plans to construct almost 100’s of miles of predominately underground fiber plant. 1:32 splitters will be placed within hardened splice closures within clusters of served locations, what we term Fiber Service Areas (“FSAs”). Each FSA will require a single dedicated strand back to the node serving it. Fiber cables will be sized for additional splitters as needed. Cable South intends to employ the Calix E7-2 XGS-PON. Each card supports 8 SFPs of XGS PON. As a result, subscribers will be capable of speeds of 10 Gbps download, 10,000 upload (10 Gbps /10 Gbps). Distances within the proposed network should require no greater than Class C+ optics within each card, allowing for distances of as great as 60km from the PON OLTs to subscribers. Each SFP is capable of speeds of 10 Gbps download and 10 Gbps upload in total, At the customer premise, Cable South will use the Calix Gigapoint ONT as its standard Optical Network Terminal. The ONT has, in addition to its PON port, one (10) gigabit ethernet port and one (1) voice line. From the ONT, Cable South intends to connect to a Calix wireless router which Cable South will remotely manage. Cable South will also either connect phones directly to the ONT, or connect the ONT to the customer’s own internal wiring. The upgrade paths available on a passive optical architecture today include both NG PON2 and XGS PON which could be employed by simply changing out electronics on one or both ends of the connection. Both modify the ITU-T G.989.2 specification and support one to sixteen (16) 10 Gbps connections on the same strand using DWDM wavelengths. Upgrade frameworks exist that allow for an upgrade to either of these specifications while allowing current subscribers to stay on the current platform, allowing for a less painful upgrade to both owners and subscribers. In either case, the currently employed distributed split model allows for flexibility when upgrades become necessary.

2. Scalability

From the outset, Cable South identified growth of its customer base and their bandwidth needs as a key consideration for network design. For this reason, Cable South chose FTTH, PON for the last mile, and Calix as its access technology manufacturer specifically with its anyPON solution in mind. Every served location will have a dedicated fiber strand between it and the 1:32 splitter feeding its service area, with additional fibers within each cable capable of lighting additional splitters. By this we mean that Cable South is designing its network with more than 100% penetration in mind at the last mile.

Explain the scalability of the broadband infrastructure to be deployed to meet future bandwidth needs.

The Harmonics REMOTE PHY 3.1 with High split is software upgradable to DOCSIS 4.0 at 10 Gig Symmetric. XGS-PON is already 10Gig, and with it being fiber PLC design it is scalable as fast as fiber equipment can get.

Provide a proposed construction timeline and duration of the deployment project period. The deployment project period is the time from award of the grant agreement to the time that service is available to the targeted prospective broadband recipients under the grant. Describe estimated timeline, deployment roll-out and number of end-users to be served in each phase (10 percent, 35 percent, 60 percent, 85 percent, 100 percent).

See Timeline document uploaded below. 23 months or less to completion.

X **Wired Infrastructure** **Fixed Wireless**

Wired Infrastructure Deployment Reporting Requirements

Describe the general design of the project and deployment plan and include the following:

- Explanation of the existing networks and equipment to be used for the project. If assets are owned by another entity, explain how they will be used for this project and, if applicable, provide a copy of the agreement between the applicant and the owner.
- Total number of miles of project infrastructure deployment, and the number of miles of project infrastructure deployment accounted for by preexisting infrastructure
- Detailed explanation of how the new or upgraded infrastructure will serve the prospective broadband recipients. In the case of the installation or upgrade of a specific site infrastructure, such as a point of presence or fiber hut (fiber), pedestal (cable), or a remote exchange/DSLAM (DSL), the applicant must include:
 - The number of prospective broadband recipients that will be served by that site infrastructure
 - The distance from the specific site infrastructure such as a POP, pedestal, or DSLAM to the end user(s) and the expected broadband speed that will be effectively delivered
- Detailed description of the design work needed for deployment, such as, but not limited to, pole work, acquiring or updating easements, and/or property acquisition.

Existing network is fiber backbone and pops with 500,000 feet aerial coax strand that we will be upgrading to DOCSIS 3.1 R-PHY with High split. The current coax/strand we will be using serves approx 4,000 passings. There will need to be 470,000 new feet of fiber built that will serve 879 passings. All passings will be served back to Concordia POP already in service. That is 25.68 homes per mile. Initial design work already done and right of ways in current coax area already permitted. Only new builds require state permits as they are along state highways.

Wired Assets

Existing Network	Existing Equipment	New/Upgraded Infrastructure	Installation Type	Num of Recipients	Avg Distance in Miles Between Prospective Recipients	Expected Speed
500000				4000	25.680	1,000x1,000 Mbps

Budget

Budget

The project budget should reflect all eligible project costs to be funded through the GUMBO Grant Program. Additionally, the project budget should include the minimum provider funding match of

at least 20%, any local government funding match from a parish, municipality, and/or school board, or any instrumentality thereof, and the requested GUMBO Grant Program funding.

See attached excel sheet with budget calculations including provider match, provider match percent, parish match, parish match percent, GUMBO requested funding, GUMBO requested funding percent.

Proof of Funding Availability

Provide a signed letter of funding availability from each source of funds committed for the project. If loan or other grant funds are pledged, a loan/grant commitment letter from each source of funds must be included. Should an applicant be an awardee of Universal Service, Connect American Phase II, Rural Digital Opportunity Fund, or other federal or non-federal funds for the deployment of broadband service, the applicant shall attest as to whether or not the applicant's GUMBO application and associated project's buildout is dependent upon such awarded funds.

See attached Letter