C. Project Narrative

The Project Narrative section of the Grant Application must not exceed ten (10) pages (single-spaced) and must include the sections described below in the order indicated. Applicants are strongly encouraged in their Grant Applications to be clear, concise and to the point.

1. **Project Description and Timeline (required)**

   Project Narratives must include a "Project Description and Timeline" for both ABDG-Rural and ABDG-Urban grant applications. Provide a detailed description of the infrastructure improvements for which funding is requested, including:

   - **The nature of the improvements**
   - **How the proposed project addresses the broadband needs of the area(s) that it serves**

   ALLO Communications, through its wholly owned subsidiary, ALLO Arizona LLC, is applying for the Arizona Commerce Authority broadband grant application to expand and install a last-mile FTTP network in the City of San Luis and provide 1+ Gbps symmetrical service.

   ALLO is partnering with Yuma County on a separate broadband grant application to provide middle-mile service to the County. The Yuma County Middle Mile project will be a key part of the modernization of the communications infrastructure in the region and will enable last-mile connections in San Luis. Since there is no publicly available Middle Mile to San Luis, the San Luis Last Mile Project is contingent upon the construction of the Yuma County Middle Mile Project.

   The project will provide will establish and accelerate the enhancement of broadband infrastructure in the area by providing reliable high-speed broadband service through an all Fiber-to-the-Premise (FTTP) network.

   Without fiber, the City will not have competitive connections for wireless, commercial, carrier, or inter-city projects today or in the future. The project will enable virtually unlimited speeds and reduced costs across a significant portion of the community.

   The San Luis last-mile project being proposed is critical to the viability of the City and its needs and will result in long-term sustainable economic development. The reliable last-mile connections will allow employees to telecommute from home, students to participate in remote learning, opportunities for current and future businesses, as well as providing improved health care processes and public safety options, among other benefits.

   In addition, San Luis is part of Yuma County, known as America's largest "salad bowl" and the number one agricultural county in Arizona. Agriculture is extremely important to the area, both economically and for employment. A solid connectivity structure will allow for new technologies to upgrade decision-making to optimize yields and improve economics.

   The proposed network will correct lack of access in both the unserved and underserved areas of San Luis and close the digital divide between rural and urban areas. ALLO is utilizing the NTIA Indicators of Broadband Need map in determining unserved and underserved areas of the City. This is the map that has been utilized by other political bodies within the State of Arizona to determine "unserved" and "underserved".

   According to the NTIA map, every census tract in San Luis (as listed in ALLO's application) qualifies as "unserved" (service less than 25 Mbps download and 3 Mbps upload) or "underserved" (service less than 100 Mbps download and 20 Mbps upload but greater than 25 Mbps download and 3 Mbps upload).

   The result of the project will be a developing gigabit society where residents communicate with governmental entities, schools, and businesses. Learning, working, and entertainment from home or at other locations are optimized.

   During the COVID-19 pandemic, ALLO has been leading the effort for our communities to stay connected. ALLO's service has been in high demand for learning and working from home services with a specific need for reliable, high-speed internet (symmetrical download and upload speeds, low

latency) as employees and students are video conferencing, uploading school assignments, and utilizing cloud storage.

Businesses have utilized ALLO services including hosted PBX, softphones, and additional bandwidth solutions in order to support their businesses and employees during this unique time.

ALLO Services

ALLO's FTTP network provides key services to last-mile customers in the County including world-class internet, fiber broadband connectivity, video/television, and voice services. ALLO's solutions offer a customer experience superior in capabilities and price.

ALLO specifically provides ubiquitous 1+ Gbps service with symmetrical speeds (delivering the same download and upload speeds) to entities including residences, businesses, and government entities.

The network model is GPON-based with active availability. ALLO's XGS GPON network is designed to be upgradeable for faster broadband speeds as demanded by the community and technological advances.

In 2020, ALLO introduced the next major benchmark in Wi-Fi technology, the **ALLO Blast U6 router**. The newest powerhouse router provides wireless connections, increased network capacity, and is Wi-Fi 6 certified. The Blast gives homes and small businesses an upgraded signal, stronger connections on all devices, and increased speeds for faster online activity.

ALLO's network is designed to provide 10 Gbps symmetrical service to all households with current offered speeds up to 2.5 Gbps. ALLO currently offers and supports broadband services to commercial entities up to 100 Gbps.

ALLO provides residential gigabit connectivity at a price of [redacted].

ALLO's service platform also includes a private (not internet-based) local telephone solution, and a world-class IPTV video solution. ALLO offers several bundling options for combining services, which provides cost savings to customers.

Emergency Broadband Benefit Program and Lifeline

ALLO has utilized local, state, federal, and ALLO corporate programs to encourage the adoption of world-class communication through education and financial contributions.

ALLO is currently participating in the Federal Communications Commission's Affordable Connectivity Program (formerly the Emergency Broadband Benefit Program) to help lower the cost of high-speed internet for eligible households during the COVID-19 pandemic.

[redacted]

ALLO also participates in the Federal Lifeline telecom program, part of the Universal Service Fund, which provides broadband and voice services at a substantially reduced cost for qualified residents on government assistance.

These programs meaningful efforts to ensure all families are connected for working, learning, entertainment, and full participation in the digital society. The proposed middle mile project will make a meaningful difference in the connectivity of the region.

- **Number of community anchor institutions served**

43*

- **Number of households served**

8,235*

- **Number of businesses served**

1,454*

- **Total population served**

35,257*

* ALLO expects to construct the fiber network to pass and be able to serve substantially all entities as listed above. However, certain geographical or other issues may prevent a small minority of the locations from being served. These locations cannot be predicted until active construction has progressed. Maximizing the entities passed and served by the grant and matching investments will be ALLO's focus.

- **The anticipated economic development benefit achieved by construction of such improvements**

Fiber is key for economic growth in San Luis. ALLO will work with the City to develop a Gigabit Society, as it has done in all of its other markets. ALLO's network will allow the community to attract new businesses and retain/expand existing businesses, providing them the opportunity to compete in the global market.

ALLO, and its network, assists in the economic success of the communities it has partnered with as follows:

- As a competitive provider, reduces costs for communications services for businesses and residents in the community [redacted]. Annual savings are typically [redacted] whether or not they choose ALLO due to competitive response.
- Participates in the marketing of the community and works with new businesses looking to relocate to the area.
- Provides discounted services to businesses developing in new areas of the community and supports start-up incubators and co-working spaces.
- Provides internships for area students and donates to area schools' technology programs to encourage the development of tech-savvy students.
- Assists in the development of business incubators.
- Creates a ubiquitous network of connected homes, businesses, and governmental institutions, enabling a true change in the local ecosystem.

A 2018 study conducted by the Center for Regional Development at Purdue University projected a number of economic benefits that could be obtained from the installation of rural broadband which could apply to San Luis. These savings could result in increased incomes and cost savings that can be put back into the economy. Some of the areas benefitted include:

Telemedicine – Reduced health costs for patients via telemedicine and transportation savings; reduced physician time for treatment and diagnosis; reduced use of emergency room and hospital facilities.

Education – Communication with teachers and access to courses increases student performance; online courses allow rural students to be on a level playing field with residents in urban areas with access to education and job skill upgrade options.

Business Investment and General Economic Development – Job creation and negative impact on unemployment; improved median household incomes; positive impact on firm location decisions; and GDP growth in areas where adopted.

Farm Income – Increased farm profitability through improved communications with suppliers and market outlets; expedited access to weather information; and improved farm management practices.

As mentioned above, the project and the contemplated final mile investments should provide [redacted] related to the increase in competitive choice. Technological solutions and other opportunities should generate additional benefits as well. Savings and opportunities over a 20-year period should generate more than [redacted] in benefits to the City

- **Total miles of fiber to be installed (if applicable)**

90.2 miles (estimated)

- **Location of new fiber (aerial, underground or both?)**

The San Luis last-mile project will utilize both aerial and underground solutions with underground as the preferred choice when economically viable. A combination of construction methods and available routes will be considered in developing an optimum design if abnormal or uneconomic costs are encountered.

ALLO mirrors the existing electric infrastructure when building its FTTP network in a community. In the case of San Luis, the network of Arizona Public Service (APS) is 80% underground and only 20% aerial. The fact that underground construction is significantly more expensive than aerial construction is a major contributing factor in requesting this grant.

- **Stated commitment to operate and maintain the network for a minimum of five (5) years upon completion of the improvements**

ALLO commits to operate and maintain the network for a minimum of five (5) years upon completion of the Project. Historically, ALLO operates the assets in our developed regions on a perpetual basis.

Network Operations

ALLO utilizes consistent technology, equipment, processes, and systems in market. ALLO provides local and regional teams and expands systems to ensure a successfully operated network.

ALLO will utilize proven products and a consistent service model to create customer satisfaction through world-class solutions. With an experienced team of more than 800 customer support personnel, ALLO's solution provides customer service excellence that is extremely scalable. Technicians, customer service representatives, sales engineers, and sales personnel hired and located in the region will be supported by ALLO's 24/7/365 Network Operations Center (NOC) and existing customer service representatives to ensure the network is performing for all customers.

ALLO's scalable Operations Support Systems and Billing Support Systems, along with other technical and analytical tools, work together to provide efficient operation of the network.

Network Management

ALLO has proven processes for managing the local network, including evaluating data to verify bandwidth sufficiency, evaluating alarms, monitoring overall performance, and escalating issues.

Sparing protocols, disaster plans and recovery testing, appropriate employee staffing, and other business processes ensure uninterrupted service. ALLO's network management provides 24/7/365 service and support.

The network will be managed and operated using proven service and support methods, which have been standard at ALLO for more than a decade. The ALLO team also directly controls upgrades, releases, and other impacts to the network.

ALLO maintains the appropriate systems for network deployment and maintenance to operate a 24/7/365 network and support including 99.999% service up-time. The programs utilized are substantial and appropriate for ALLO's network.

- **The party or parties that will perform the infrastructure construction (if known)**

The construction process will be managed by ALLO utilizing a third-party construction contractor for certain tasks. The construction vendor selection process will focus on contractors and managers that

are familiar with the region and ALLO's construction and safety expectations. ALLO will provide oversight of these contractors to ensure the network is built to the designed specifications.

Quality will be checked by the City, ALLO, and others to verify appropriate construction standards, meet budget expectations, and ensure completion timeliness. The construction of a highly dependable network in a cost and time-efficient manner is the goal for all involved. Safety is a focus throughout the project.

ALLO will provide design, splicing, restoration, construction management, locating, surveillance, sales, provisioning, and many other tasks during construction as well as post-construction operations and maintenance.

- **The intended uses of the ABDG Rural/Urban funds in respect to the construction or planning**

The funds will be used by ALLO to reduce the costs of providing a last-mile fiber solution and connect customers. In the absence of the grant, a FTTP solution would not be economically viable.

- **The specific information required under Section 1.4 (to the extent relevant)**

The Project will benefit governmental institutions, businesses, and consumers by providing high-speed bandwidth connections, internet solutions, wholesales services, cost-efficiency, and many other benefits through last-mile connections.

- **A timeline for completion of the infrastructure improvements**

The construction timeline provided in this response is an estimate based on an assumption of normal permitting, procurement, and construction intervals.

Many decisions will impact the plan including contract finalization, permitting, pole approval, easement issues and verification, City right-of-way agreements, building rights of entry, and final project scope. Tasks within ALLO's direct control including safety, design, construction, material acquisition, splicing, restoration, and other processes will be developed with ALLO's Project Management Office.

Deployment Plan

ALLO's in-house Design Team rapidly creates actionable plan sets using GIS information and computer modeling for the fiber optic cable designs. Experts from ALLO and its construction contractor partner with community stakeholders to refine the designs.

This collaboration between ALLO, its construction contractor, other utilities, and San Luis ensures optimal efficiency and eliminates contractor rework.

The first segments will be active approximately 6 months after the onset of construction. ALLO's defined and predictable process relies on collaboration and cooperation with the City and electric utilities for effective construction processes for launch of the service areas. San Luis will control the speed of the project in many ways especially related to permitting, approvals, and other oversite. The permitting process may also be impacted by other entities.

In ALLO's previous projects, ease of design and construction dictate which areas are constructed first, with more complicated areas completed later. The latter often take much longer to design and evaluate cost-efficient construction solutions.

Timeline:

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

Note that the timeline suggests service to first customers in 2022, however, all customers will not be served until 2024.

The description should also describe the amount of the cash "match" contribution to be provided, including:

- **The timing of such match**
- **The intended uses of the match**
- **The identity of any sources other than the applicant who are responsible for such match or portions thereof**
- **The nature of the commitment by the Applicant or other parties to deliver the match including whether such commitment is in writing and binding in all circumstances**

This section must also explain the circumstances as to why, in the absence of ABDG-Rural/Urban funding, the proposed project would not proceed within the same time frame or would not otherwise be as effective in advancing the objectives of the Program.

ALLO will provide [redacted] for the project's match plus fund electronics and other costs that are not deemed to be eligible for funding. The funds are available today and will be remitted for the design and construction of the Project over the timeline estimated above.

The funding will provide last-mile connections to substantially improve cost-effective and sufficient connectivity for the City which would impact agricultural industry and water conservation.

As mentioned earlier in the response, ALLO mirrors the existing electric infrastructure when building its FTTP network in a community. In the case of San Luis, the network of Arizona Public Service (APS) is 80% underground and only 20% aerial. The fact that underground construction is significantly more expensive than aerial construction is a major contributing factor in requesting this grant.

Please see Section D - Project Budget which includes the line-item budget for the proposed project and cash match committed to the project.

2. **Project Description and Timeline - Development (required)**

Project Narratives must include a "Project Description and Timeline – Development" section which must include a detailed description of relevant future development that is intended to be benefited by the proposed infrastructure improvements including, as applicable, a Gantt chart timeline for such development

This section should identify, to the extent known:

- **The nature and scope of the project**

Future development in San Luis will greatly benefit from the last-mile FTTP network. Per the 2020 City of San Luis General Plan, San Luis is the fastest growing community in Yuma County and has experienced significant growth, with an increase of over 100% since the last update to the General Plan. There has been an influx in residents resulting in new housing developments. The growth is expected to continue for the coming years.

As the San Luis population continues to grow, it is poised to add additional housing developments, businesses, schools, and healthcare facilities. High-speed broadband infrastructure and services are critical to accommodate this future growth and development, just like water and sewer infrastructure.

ALLO's defined project management process has been refined over the past decade based on its experiences providing services in both large and small markets. Quality will be checked by ALLO, the City, and others to verify that construction standards, budgets, and timelines meet expectations.

ALLO uses Gantt chart project management tools to monitor the various tasks in the project, including design, engineering, permitting, construction, deployment, and testing of the network. Smart Sheets, Microsoft Project, GIS design tools, and various other project tracking systems will also be utilized.

ALLO will provide a dedicated Project Manager who will office in the region throughout the deployment and implementation of the project. The Project Manager will have oversite for all aspects of the project and will report and meet with designated City team members on a weekly basis, at minimum, to review the Gantt charts and weekly reporting package, as well as to adjust activities to meet expectations.

Please refer to the Project Description and Timeline section earlier in the response for a description and timeline of the events during the process. A Gantt chart is provided in **Appendix A**.

- **Type of technology to be utilized**

The technology is conduit, strand, and fiber for last-mile connections which will enable FTTP, wholesale, wireless, and other connectivity. The technology is proven and provides much-needed initial and redundant middle-mile connectivity.

ALLO provides broadband service through an all FTTP network. ALLO's pure fiber-optic service connects directly to homes or businesses. Fiber-optic cables, rather than copper or coaxial cables, provide faster and more reliable services, even during peak usage times.

ALLO has operated FTTP networks for 18 years. ALLO's network model is GPON-based with active availability. ALLO's GPON network is designed to be upgradeable for faster broadband speeds as demanded by the community and technological advances.

By utilizing world-class technology (Calix, OFS, Metaswitch, and Ericsson) and ALLO's processes, the San Luis network will be dependable and reliable, while providing technologically advanced solutions.

- **Type of construction to be undertaken (aerial or underground)**

The San Luis fiber network will utilize underground (preferred) and aerial. Aerial will be utilized when cost or geographic impediments exist.

- **Qualifications of the vendors/contractors**

ALLO has designed, constructed, maintained, and provided services for ubiquitous fiber networks since 2004. ALLO began expanding its fiber network throughout Nebraska, Colorado, and Arizona with a passion for providing greater access and a goal to close the digital divide. ALLO is making a substantial economic impact in its communities, helping to meet the technology needs of businesses and residents.

ALLO has an experienced 800-person operation, which has proven successful throughout numerous cities and public-private partnership models. ALLO has over 100,000 customers and generates more than [redacted].

ALLO currently provides (or is in the process of providing) communications services to 28 communities across Nebraska, Colorado, and Arizona totaling 1 million population. Cities with populations of 1,400 to 290,000 are included in this total, representing the depth of ALLO's model.

City/State	Date	Population[1]	City/State	Date	Population[1]
Lincoln, NE	2015	291,082	Gering, NE	2006	8,564
Yuma County, AZ	2022	203,881	Alliance, NE	2007	8,151
Greeley, CO	2021	108,795	York, NE	2022	8,066
Lake Havasu City, AZ	2021	57,144	Seward, NE	2022	7,643
Grand Island, NE	2021	53,131	Sidney, NE	2022	6,410
Kingman / New Kingman-Butler, AZ	2022	45,596	Wayne, NE	2021	5,973
Kearney, NE	2021	33,790	Breckenridge, CO	2019	5,078
Fremont, NE	2021	27,141	Ogallala, NE	2010	4,878
Hastings, NE	2018	25,152	Ashland, NE	2022	3,086
Norfolk, NE	2020	24,955	Hudson, CO	2021	2,767
Columbus, NE	2021	24,028	Valentine, NE	2021	2,633
North Platte, NE	2011	23,390	Milford, NE	2022	2,155
Scottsbluff, NE	2005	14,436	Imperial, NE	2019	2,068
Fort Morgan, CO	2018	11,597	Bridgeport, NE	2010	1,454

- **Engineering analysis**

ALLO's Design and Engineering team has performed an initial GIS-based analysis of the San Luis network. Additionally, initial final mile designs have been completed.

Please see Project Approach and Sections E and H for additional information.

- **Project approach**

The business approach ALLO intends to use for the San Luis project will mirror the approach used in our other markets. The business model includes all stages of the project, from design through construction to sales, installation, and ongoing support. ALLO's process often reduces the overall cost of construction by more than [redacted].

A Full-Service Solution

Design & Feasibility – ALLO will design the network using its playbook, auto-design programs, and available GIS information for the community and existing utilities to provide an optimized plan for the fiber network for San Luis.

An integral part of this process includes collaboration with the City to utilize local knowledge and expertise, including detailed knowledge of city-owned assets, construction requirements, upcoming capital projects, and permitting processes.

The network construction cost will continue to be refined with a reasonable, safe build interval. Once the project and financial arrangement are approved by all parties, ALLO's proven construction

[1] Population totals via 2020 U.S. Census Bureau

management processes will be utilized in order to minimize construction and operational risk as well as reduce overall costs.

The current GIS design will be finalized with inputs from local utility experts and the ALLO construction team, resulting in a final comprehensive design for the defined area.

Construction Process – The construction process will be managed by ALLO utilizing a third-party construction contractor. The construction vendor selection process will focus on contractors and managers that are familiar with the region and ALLO's construction and safety expectations. ALLO will provide oversight of these contractors to ensure the network is built to the designed specifications.

Quality will be checked by the City, ALLO, and others to verify appropriate construction standards, meet budget expectations, and ensure completion timeliness. The construction of a highly dependable network in a cost and time-efficient manner is the goal for all involved. Safety is a focus throughout the project.

Connection to ALLO's Service Platform and Network Operations Center – Concurrent with the construction effort, redundant connections to ALLO's service platform and NOC will be completed. The connections will enable ALLO's NOC and service platform for the middle mile operations.

Service Launch – Approximately six months after the start of construction, customers located in the initial service areas will be connected to the network. ALLO can provide a full suite of products and services using our existing service model.

Customer Connections – Connections from the easement to the home or building will be powered using a common GPON solution. A homogenous network ensures a cost-efficient design with network dependability and security. ALLO utilizes a Calix GPON solution from central office to Wi-Fi6 router.

Connectivity for large businesses and large governmental entities will be provided with individualized solutions (such as Calix, Adtran, and Cisco), including active Ethernet connections and fully-redundant paths and entrances, when required. The standard network design will accommodate both GPON and active solutions.

- **Background of the project**

Please refer to the Project Description and Timeline section earlier in this response.

- **Population to be served**

35,257*

- **Number of households served**

8,235*

- **Number of anchor institutions served**

43*

- **Number of businesses served**

1,454*

* ALLO expects to construct the fiber network to pass and be able to serve substantially all entities as listed above. However, certain geographical or other issues may prevent a small minority of the locations from being served. These locations cannot be predicted until active construction has progressed. Maximizing the entities passed and served by the grant and matching investments will be ALLO's focus.

- **Ways in which the project will improve redundancy and reliability, if any**

The fiber networks are designed to be a perpetual business with appropriate upgrades for the future. Existing ALLO fiber networks have been operational for 15 years and are expected to be utilized for 30+ additional years.

Most of San Luis lacks the competitive fiber-rich connectivity necessary to enable modern communications and internet technologies. The San Luis fiber network was specifically designed to provide the necessary redundant connectivity to enable FTTP connections in rural and municipal areas.

3. Other Project Outcomes (optional)

Project Narratives may include an "Other Project Outcomes" section which may include a description of any intended project outcomes not described in other sections. The outcomes should be described in terms of how the project will support or enhance economic development, community resiliency, educational and/or healthcare advancements, and public safety. Additional metric should be quantified by the improvements by miles of fiber installed, potential businesses served, potential households served, potential anchor institutions served, and total potential population served.

ALLO's purpose is to create and serve gigabit communities. In accomplishing this goal, ALLO provides bandwidth and services beyond the current needs of the region much like other utilities operate with electricity, sanitation, and water. ALLO enables the regions and their unique locations and cultures to expand opportunities when bandwidth is no longer a barrier. Please see the previous sections which address other project outcomes.

wkt_geom	GISJOIN	STATEFP	COUNTYFP	TRACTCE	GEOID	NAME	NAMELSAD
MultiPolygon (((399346.343	G0400270011602	4	27	11602	4027011602	116.02	Census Tract 116.02
MultiPolygon (((380463.400	G0400270011601	4	27	11601	4027011601	116.01	Census Tract 116.01
MultiPolygon (((400335.575	G0400270011408	4	27	11408	4027011408	114.08	Census Tract 114.08
MultiPolygon (((401562.927	G0400270011407	4	27	11407	4027011407	114.07	Census Tract 114.07
MultiPolygon (((388293.061	G0400270011405	4	27	11405	4027011405	114.05	Census Tract 114.05
MultiPolygon (((385584.333	G0400270011403	4	27	11403	4027011403	114.03	Census Tract 114.03