



Government of Puerto Rico
Office of Management and Budget

BEAD Initial Proposal Volume 2

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Introduction

The Puerto Rico Broadband Program is tasked with the deployment of local and federal broadband funds, including \$334.6 million in federal Broadband Equity, Access, and Deployment (BEAD) funding for Puerto Rico through the Infrastructure Investment and Jobs Act (IIJA). This historic investment in broadband infrastructure and related digital inclusion efforts will support Puerto Rico's vision for universal broadband access:

All residents, regardless of their background or location, will have access to the resources and opportunities necessary to thrive in the digital world and fully participate in modern society.

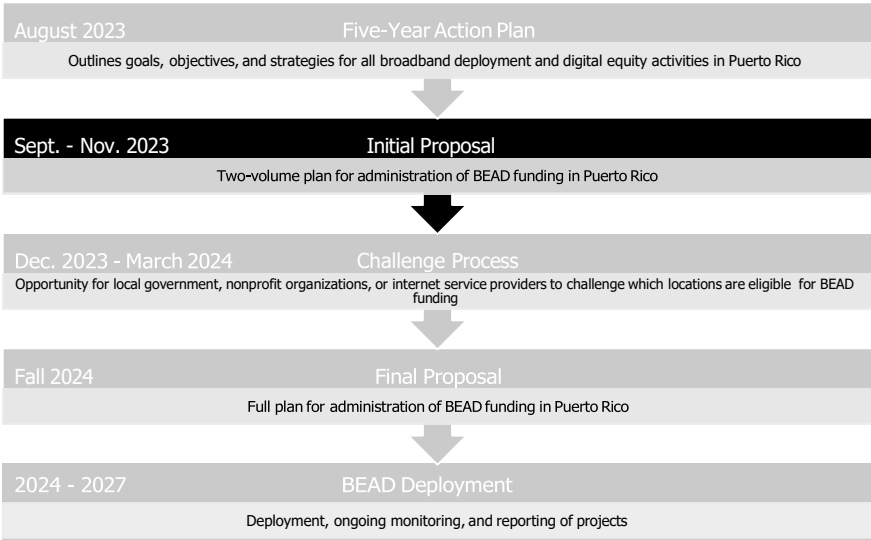
Building upon the strategies outlined in Puerto Rico's BEAD Five-Year Action Plan and the Initial Proposal Volume 1, this Initial Proposal Volume 2 includes the following sixteen (16) requirements, outlined in Figure 1 below. The Puerto Rico Broadband Program has followed the structure of National Telecommunications and Information Administration (NTIA) guidance and responded to submission text boxes throughout the proposal for ease of review.

Figure 1: Initial Proposal Volume 2 Requirements

Objectives	Local and Regional Broadband Planning	Minority Business Enterprises/Women's Business Enterprises/Labor Surplus Area Firms Inclusion	Cost and Barrier Reduction
Local Coordination	Deployment Subgrantee Selection	Climate Assessment	Low-Cost Broadband Service Option
Non-Deployment Subgrantee Selection	Eligible Entity Implementation Activities	Use of 20 Percent of Funding	Eligible Entity Regulatory Approach
Labor Standards and Protection	Workforce Readiness	Certification of Compliance with BEAD Requirements	Middle Class Affordability Plans

This Initial Proposal Volume 2, paired with the four requirements met in the previous Initial Proposal Volume 1, will serve as Puerto Rico’s draft plan for deployment of BEAD funding and for providing reliable, affordable high-speed internet to all residents. **Error! Reference source not found.** below provides an overview of BEAD deployment in Puerto Rico.

Figure 2: BEAD Deployment Process in Puerto Rico



Req. 1. Objectives

2.1.1 Text Box: Outline the long-term objectives for deploying broadband; closing the digital divide; addressing access, affordability, equity, and adoption issues; and enhancing economic growth and job creation. Eligible Entities may directly copy objectives included in their Five-Year Action Plans.

The Puerto Rico Broadband Program was created by the Government of Puerto Rico (Government) in response to Puerto Rico's need for a resilient, equitably distributed broadband internet infrastructure and the social support necessary to access the internet knowledgeably, effectively, and safely. The Puerto Rico Broadband Program complements and supplements existing Federal programs in response to the 2017 – 2020 environmental disasters that leveled the existing infrastructure, as detailed in Requirement 2.

The Puerto Rico Broadband Program collaborated with Federal and local Government agencies, community organizations, and industry partners to develop a comprehensive vision and established broad, short-term, and long-term goals for broadband deployment and digital equity in Puerto Rico. These goals describe achievable outcomes supporting residents and fulfilling Puerto Rico's vision for all residents and businesses to thrive in the digital world and fully participate in modern society.

The goals described below are supported by specific and obtainable objectives. These measurable, time-based objectives will help the Puerto Rico Broadband Program evaluate progress and follow a clear path to reliable, highspeed connectivity and broadband adoption for all residents and businesses, aligned with the Puerto Rico Broadband Program's four (4) pillars: **connectivity and resilience, quality and speed, accessibility, and knowledge.**

Connectivity and Resilience

Puerto Rico's priorities will be to create resilient infrastructure along key routes that connect community anchor institutions while providing access to hardened infrastructure for multiple use cases, including middle mile networks, last mile networks, utility communications, and wireless backhaul.

Past broadband deployment in Puerto Rico has been significantly impacted by storms and deterioration.¹ Puerto Rico will be prioritizing efforts to ensure that all new infrastructure is strategically planned, and all existing infrastructure is made more resilient through additional hardening to withstand the test of time, while also adopting scalable technologies. To achieve connectivity and resilience for all, the Puerto Rico Broadband Program will focus on the following goals and objectives:

GOAL 1: Resilient Broadband Infrastructure Island Wide

Objectives:

Within four (4) years:

- All Municipalities will have resilient fiber optic cable along key routes, supplemented by resilient microwave routes where required by complexities in topography, available for multiple uses including middle mile networks, last mile networks, utility communications,

¹ For more information on the current state of broadband infrastructure in Puerto Rico, see the Five-Year Action Plan.

Government and emergency communications, community anchor institutions, and wireless backhaul.

- Key infrastructure points such as wireless towers, points of presence, and major equipment shelters will be resilient against expected environmental challenges and power failures. This includes appropriate structural reinforcement, back-up power, and redundant connections to other network infrastructure.
- Puerto Rico will have multiple, geographically diverse undersea fiber optic cable landing stations, including on the north and south coasts of Puerto Rico.

GOAL 2: Address barriers for building new broadband infrastructure

Objective:

- The Puerto Rico Broadband Program will work closely with Government agencies, Municipalities, and other key stakeholders to ensure clear, consistent, and expeditious processes for utility pole and conduit access, environmental requirements, “dig once” regulations, and access to public rights-of-way.

GOAL 3: Promote competition among internet service providers, including small and medium enterprises.

Objective:

- Throughout the implementation of the IIJA funding, new Government funded infrastructure will be available for use by multiple service providers. Whenever feasible, all projects will include mechanisms for the participation of small and medium enterprises based in Puerto Rico. The Government’s efforts to promote competition and improve the quality of broadband internet service are essential to Puerto Rico’s economic development. Broadband internet is a key driver of economic growth, and by promoting competition and improving the quality of broadband internet service, the Government is helping to create a more competitive and prosperous economy in Puerto Rico.

GOAL 4: Sustain a skilled broadband workforce to meet deployment needs.

Objectives:

- All broadband industry partners will convene to coordinate deployment needs by 2024. The Puerto Rico Broadband Program will actively cultivate the supply side of the labor market through industry cooperation and tailored marketing strategies.
- Between 2024 and 2025, the Puerto Rico Broadband Program will expand training opportunities to enter the broadband industry by developing training programs, including launching short-form courses and credentials, and tailoring advanced degrees.
- The Puerto Rico Broadband Program will create career exploration opportunities for K-12 students to support long-term talent development as well as community colleges and university opportunities.
- The Puerto Rico Broadband Program will support employer participation in registered apprenticeships, other apprenticeship programs, and individual employee incentives to build industry-supported training programs with work-based learning opportunities.
- The Puerto Rico Broadband Program will develop the local workforce by training workers in other similar industries who can be quickly certified in new roles related to broadband.

Quality and Speed

All residents must be able to rely on high-speed, quality service regardless of where they access the internet in Puerto Rico. By monitoring service offerings and the residential broadband consumer demographic, the Puerto Rico Broadband Program aims to improve the availability of information for consumers and the public regarding their broadband services. Additionally, the standardized Quality of Service (QoS) metrics will assist Internet Service Providers (ISPs) in identifying areas for improvement, while providing consumers with a basis for selecting reliable and reputable service providers. Ultimately, this initiative seeks to promote accountability, transparency, and equitable access to high-quality telecommunications services throughout Puerto Rico.

Quality high-speed internet is critical for remote working, distance learning, and telehealth—only some of the many opportunities in the digital world made available with a reliable internet connection. Highspeed, reliable internet eliminates problems like buffering, failed uploads, poor-quality video calls, and a host of other poor connectivity issues. Resilient, storm-hardened infrastructure suited to the various geographies of Puerto Rico will support quality and speedy connections for homes, businesses, offices, and more. The Puerto Rico Broadband Program will consider additional efforts that support and upgrade all broadband infrastructure to the highest possible speeds. To ensure all residents have fast and quality service, the Puerto Rico Broadband Program will focus on the following goals and objectives:

GOAL 1: Access to low-latency broadband at speeds of 100/20 Mbps or more.

Objectives:

- All Broadband Serviceable Locations in Puerto Rico will have access to broadband at speeds of 100/20 Mbps or more and latency of 100 milliseconds or less by 2027.
- Over time, Puerto Rico programs for new or upgraded broadband infrastructure will require or prefer projects capable of 1000/500 Mbps service or greater and service via fiber optic technology wherever feasible.

GOAL 2: Community anchor institutions will have access to symmetrical gigabit service.

Objectives:

- Throughout the BEAD deployment time frame, routes for fiber optic cable will prioritize connection to community anchor institutions and will retain high-speed service for their essential community work.
- In addition to administrative offices, classrooms and other areas of schools will be connected to high-speed internet and Wi-Fi enabled to support online educational services for every student.
- Coverage will be made available to public housing buildings and within units.

Accessibility

The Puerto Rico Broadband Program is committed to making high-speed internet accessible and affordable to all, especially residents for whom the cost of internet has been a significant burden or barrier.

Pervasive barriers for low-income households include high-cost broadband subscriptions and expensive devices. Opportunities that require reliable internet remain inaccessible for low-

income households when cost continues to be the primary limitation. Most low-income households do not find it necessary to connect their household to broadband service since they have it already available in their mobile devices. Affordability is a top priority informing infrastructure planning and collaboration with internet service providers in Puerto Rico. To ensure all residents can access the internet and devices at an affordable price, the Puerto Rico Broadband Program will focus on the following goals and objectives:

GOAL 1: Broadband subscriptions will be accessible at affordable prices.

Objectives:

- Relationships with internet service providers will support the development of affordable options for low-income households and facilitate sharing of adoption rate data.
- Service affordability measures will be integrated into infrastructure planning.
- Enrollment in the Federal Communications Commission's (FCC) Affordable Connectivity Program (ACP) will increase throughout Puerto Rico in alignment with the targets outlined in the Digital Equity Plan.
- Whenever feasible, affordability programs will include mechanisms for the participation of small and medium enterprises based in Puerto Rico.

GOAL 2: Internet-enabled devices will be accessible and affordable.

Objectives:

- The Puerto Rico Broadband Program will support device distribution through partnerships with device refurbishment organizations.
- By 2025, all Puerto Ricans will have access to affordable devices that meet their individual needs and technical support for maintenance and repair.
- By 2025, affordable adaptive accessories will be available for covered populations and residents with special needs.

GOAL 3: Online public resources will be inclusive and accessible to all Puerto Ricans, regardless of ability.

Objective:

- By 2025, online Government services for agencies supporting vulnerable populations will be fully inclusive and accessible.

Knowledge

For all residents to access online health care, school, work, and public services safely and effectively, the Puerto Rico Broadband Program will work to increase the number of digitally literate residents in Puerto Rico.²

² According to the National Digital Inclusion Alliance, a digitally literate person: Possesses the variety of skills – technical and cognitive – required to find, understand, evaluate, create, and communicate digital information in a wide variety of formats; Is able to use diverse technologies appropriately and effectively to retrieve information, interpret results, and judge the quality of that information; Understands the relationship between technology, life-long learning, personal privacy, and stewardship of information; Uses these skills and the appropriate technology to communicate and collaborate with peers, colleagues, family, and on occasion, the general public; and Uses these skills to actively participate in civic society and contribute to a vibrant, informed, and engaged community.

Even with an affordable connection and internet-enabled device, many people require additional support to access the internet and participate fully in online opportunities. As residents gain access to affordable high-speed service and digital devices, the Puerto Rico Broadband Program will support programming for digital literacy that provides individuals of various skill levels with the knowledge and training they need to take advantage of the digital world's possibilities. To ensure all residents are empowered to utilize technology, the Puerto Rico Broadband Program will focus on the following goals and objectives:

GOAL 1: Support digital literacy and digital skills for all residents.

Objective:

- Continual updates will be made to the existing digital literacy programs and best practices inventory.
- The Puerto Rico Broadband Program will support the development of an island-wide, culturally relevant digital navigator program through partnership with local Government agencies, non-profits, libraries and schools to incorporate any existing programs or resources.

GOAL 2: Promote the importance of online security and privacy.

Objective:

- The Puerto Rico Broadband Program will collaborate with the Puerto Rico Innovation & Technology Service (PRITS)³ and across other Government agencies and community organizations to create educational information about online scams, online phishing, and other cybersecurity threats.

GOAL 3: The Puerto Rico Broadband Program will make outreach efforts to communicate all advances in Connectivity in Puerto Rico

Objective:

- The Puerto Rico Broadband Program will partner with the Puerto Rico Tourism Company (PRTC)⁴, Invest Puerto Rico (Invest-PR)⁵, and Puerto Rico's Destination Marketing Organization (PR-DMO)⁶ to promote abroad all advances in telecommunications and connectivity throughout Puerto Rico.

National Digital Inclusion Alliance, "The State Digital Equity Plan Toolkit," <https://www.digitalinclusion.org/state-digital-equity-plan-toolkit>.

³ Created pursuant to Act No. 75-2019 (Act 75).

⁴ PRTC is an instrumentality of the Government, created pursuant to Act No. 10-1970, as amended, and mainly has all rights, duties and powers that are necessary or convenient to promote, develop and improve the tourism industry in Puerto Rico, among other things.

⁵ Invest-PR is a not-for-profit entity incorporated in Puerto Rico according to Act No. 13-2017, as amended; its principal objective is to promote Puerto Rico as an ideal place to conduct business, and its primary task is attracting new investors capable of injecting new capital to the Puerto Rican economy, among other things.

⁶ PR-DMO is a Government corporation created pursuant to Act No. 17-2017, and has the objective to develop Puerto Rico's tourism branding and promote the Island to attract visitors and increase Puerto Rico's international exposure as a tourist destination.

In addition to improving the quality of life for residents and businesses, better connectivity and resources will attract the Puerto Rican diaspora to return to Puerto Rico for educational, business, and professional opportunities. By showcasing advancements in technology and infrastructure, broadband efforts can entice skilled professionals and entrepreneurs to establish themselves in Puerto Rico, ultimately contributing to the growth of the local economy. With access to high-quality education and a thriving business environment, returning Puerto Ricans can help to create a self-sustaining and prosperous community. These initiatives have the potential to serve as a beacon of progress and a source of pride for the people of Puerto Rico, inspiring others to invest in Puerto Rico's future.

Req. 2. Local and Regional Broadband Planning Process

2.2.1 Text Box: Identify and outline steps that the Eligible Entity will take to support local, Tribal, and regional broadband planning processes or ongoing efforts to deploy broadband or close the digital divide. In the description, include how the Eligible Entity will coordinate its own planning efforts with the broadband planning processes of local and Tribal Governments, and other local, Tribal, and regional entities. Eligible Entities may directly copy descriptions in their Five-Year Action Plans.

The Puerto Rico Broadband Program began the development of new program strategies with an inventory of existing infrastructure programs to align, complement, and inform its new initiatives in infrastructure and digital equity.

On September 6, 2017, and September 20, 2017, respectively, Hurricanes Irma and Maria struck Puerto Rico, causing unprecedented humanitarian, economic, and infrastructure-related damages and upending the daily lives of Puerto Rico's over three million residents. Thousands of residents were left homeless, basic utilities were completely shut down, and schools, hospitals, and businesses were destroyed. Tens of thousands of local residents fled the Island. The Federal Government's response has become one of the largest and most complex disaster relief efforts in U.S. history.

Thereafter, on December 2019, an earthquake registering at a magnitude of four point seven (4.7) on the Richter scale hit Puerto Rico. This earthquake represented one of one thousand (1,000) overall earthquakes of magnitude three (3) or greater that would hit the Island over the next couple months, with six (6) being over magnitude five point five (5.5) and one being the most destructive in Puerto Rico's history. Hundreds of structures, including homes, local government institutions, small businesses, and houses of worship, have been damaged or destroyed by these devastating shocks.

In light of the aforementioned natural catastrophes that devastated Puerto Rico's existing infrastructure, projects administered by the Federal Government in recent years have focused on supporting Puerto Rico's disaster recovery, providing resilient infrastructure options, and utilizing fiber-to-the-premises technology. The Puerto Rico Broadband Program has taken a similar approach in awards from local funds to provide resilient infrastructure and create opportunities for residents to access free Wi-Fi in public spaces.

There are six (6) funding sources currently available in various stages from planning to launch.

Figure 3: Currently Available Funds

Source	Purpose	Total
Uniando a Puerto Rico (FCC)	Enhance resiliency and redundancy in telecom networks, restore gains destroyed by Hurricanes Irma and Maria in 2017.	\$51.2M (Stage I) \$127.1M (Stage II) \$233.9M (Stage II added)
ReConnect (United States Department of Agriculture; USDA)	Bring high speed broadband to rural areas. The project will connect twelve hundred (1,200) homes and seven (7) public schools using fiber to the premises (FTTP) network.	\$8.7M
Disaster Recovery (Federal Emergency Management Agency; FEMA)	<ul style="list-style-type: none"> Disaster Recovery for infrastructure, public utilities, aqueduct/sewer, buildings, roads, bridges, parks, and recreation (Road to Recovery) Infrastructure resilience through risk mitigation of natural disasters, development emergency systems, and community resilience (Road to Resilience) 	\$8.8M Road to Recovery \$2.4M Road to Resilience
Puerto Rico Broadband Infrastructure Fund (PRBIF)	Support expansion efforts in unserved and underserved areas, supporting communities. Complements Federal broadband programs., e.g., public Wi-Fi, resilient power and hardening, submarine cable resiliency, off-island submarine cable connectivity, support underground fiber program, support to FCC's Affordable Connectivity Program Outreach, communications and educational campaigns, Quality of Service monitoring, Quality of Service for Government agencies, carrier neutral landing stations, multipurpose community technology centers	\$400M (FY 2020-2021 Certified Budget for the Central Government)
Capital Projects Fund of the US Treasury Department (CPF)	Expansion and upgrades of broadband infrastructure	\$158.3M
Affordable Connectivity Program Outreach Grant (FCC)	Increase enrollment in the Affordable Connectivity Program	\$740K

Steps to Support Regional and Local Efforts

The Puerto Rico Broadband Program has and continues to collaborate with a range of stakeholders, bringing together Federal partners, the Governor's Office, all of Puerto Rico's seventy-eight (78) Municipalities, public institutions, private sector, and nonprofit organizations on behalf of the people of Puerto Rico. This holistic practice has the benefit of harnessing expertise with field experience to best serve all residents' needs for connectivity, quality, accessibility, and knowledge to thrive in modern society. Regional and local efforts to support broadband infrastructure began at the planning stage and continue through implementation as the Puerto Rico Broadband Program plans and implements programs. For more information on local coordination conducted by the Puerto Rico Broadband Program, see Requirement 4.

Req. 4. Local Coordination

2.3.1 Text Box: Describe the coordination conducted, summarize the impact such impact has on the content of the Initial Proposal, and detail ongoing coordination efforts. Set forth the plan for how the Eligible Entity will fulfil the coordination associated with its Final Proposal.

Puerto Ricans in every Municipality, community leaders, government agencies, and internet service providers have had the opportunity to inform infrastructure planning throughout development of the Five-Year Action Plan, Digital Equity Plan, Initial Proposal Volume 1, and this Initial Proposal Volume 2.

The Puerto Rico Broadband Program will continue to coordinate with all communities within Puerto Rico, including underrepresented populations, and a range of stakeholders for the Initial Proposal and Final Proposal phases of the BEAD program. Figure 4 outlines the five BEAD Notice of Funding Opportunity (NOFO) criteria the Puerto Rico Broadband Program has met and will continue to address in all local coordination efforts. Each of these criteria are outlined in the following sections.

Figure 4: Coordination of Evaluation Criteria



Source: NTIA

The Puerto Rico Broadband Program has engaged with dozens of entities across Puerto Rico during planning and is prioritizing further data collection and coordination during implementation of proposed activities. Leveraging existing relationships throughout the Government and the private sector, the Puerto Rico Broadband Program is combining efforts for high-speed internet deployment and digital equity affordable access and knowledge, ensuring BEAD and Digital Equity Act plans are integrated for impactful broadband expansion and digital equity outcomes for all Puerto Ricans.

Geographic Coverage

The Puerto Rico Broadband Program recognizes the importance of full participation within Puerto Rico and has engaged with stakeholders in every Municipality on high-speed internet deployment and digital equity plans. The Puerto Rico Broadband Program engaged all seventy-

eight (78) Municipalities early in planning, requesting each municipality participate in an inventory of infrastructure and current plans. Each mayor was also asked to inform planning in their areas by providing optimal locations for the Puerto Rico Broadband Program's Public Wi-Fi Infrastructure Program.⁷ The Puerto Rico Broadband Program held regional listening sessions and additional Municipality meetings during development of the Five-Year Action and Digital Equity Plans.

The Puerto Rico Broadband Program and its partners also launched three surveys of residents and community leaders throughout Puerto Rico to complement listening session findings:

- A Digital Inclusion Survey of key organizations,
- A Digital Equity Phone Dial Survey of unserved and underserved residents, and
- A Connectivity Survey with an optional speed test for Puerto Ricans to share their service experiences and device use.

Respondents from every area of Puerto Rico offered their experiences on service affordability, workforce needs, and organizational missions. Residents and community leaders will continue to inform planning in follow-up meetings throughout implementation, additional regional listening sessions, and coordination with community anchor institutions across Puerto Rico during development of the Final Proposal.

Diverse Stakeholder Groups

The Puerto Rico Broadband Program has coordinated with public sector, private sector, and community-serving stakeholders throughout planning and in development of this Initial Proposal. At the Smart Island Summit, the Puerto Rico Broadband Program convened over three hundred (300) stakeholders from Municipalities, the telecommunications industry, academia, community advocacy, and government to inform strategies for high-speed internet deployment and digital equity.

The Puerto Rico Broadband Program established regular meeting schedules for three committees that will continue to provide valuable insights and connect broadband planning to other initiatives throughout Puerto Rico. The **Broadband Executive Committee** reviews strategies and progress on infrastructure and digital equity to ensure all efforts advance the goals set forth in the Five-Year Action Plan, with support from the **Broadband Advisory Council**. The Puerto Rico Broadband Program is also convening the **Digital Equity Advisory Subcommittee** to support Puerto Rico's participation in digital equity interventions for members of covered populations and to discuss broadband workforce strategies. Figure 5 below lists each committee's representatives.

⁷ For more information on the Public Wi-Fi Infrastructure Program, see the Five-Year Action Plan.

Figure 5: Puerto Rico Broadband Program Committees

Broadband Executive Committee	Broadband Advisory Council	Digital Equity Advisory Subcommittee
<ul style="list-style-type: none"> PR Telecommunications Bureau (PRTB) PR Office of Management and Budget (OMB) PR Department of Treasury (Hacienda, for its Spanish name) PR Secretary of the Government for Innovation, Information, Data and Technology (CW-IT Secretary) PR Government's Chief Innovation and Information Executive (CW-CIO) 	<ul style="list-style-type: none"> PR Aqueduct and Sewers Authority (PRASA) PR Association of Mayors PR Telecommunications Alliance PR Highway and Transportation Authority (HTA) PR Federation of Mayors PR Department of Public Safety (DSP) PR Fiscal Agency and Financial Advisory Authority (AAFAF) PR Permit Management Office (OGPe) 	<ul style="list-style-type: none"> Patient Advocate Office (OPP) Elder Advocate Office (OPPEA) Veteran Advocate Office (OPV) Defender of the People with Disabilities (DPI) Universities Representatives Community Leader Representatives Union Representatives Health Associations Non-Profit Representatives Department of Corrections and Rehabilitation Covered Population Representatives

In partnership with committee members, the Puerto Rico Broadband Program continues to meet with stakeholders, including the public, to solicit feedback on the proposed programs. The Puerto Rico Broadband Program will describe the major funding programs, subgrantee selection, and other key plans outlined in this proposal to multiple stakeholder groups, including Municipalities and workforce contacts, for feedback.

The Puerto Rico Broadband Program will ensure ongoing coordination with diverse stakeholders following submission of this Initial Proposal, including in subgrantee program scoring criteria that will prioritize coordination between internet service providers, local Governments, and underrepresented communities. See Requirement 8 for additional information about local coordination scoring criteria for the deployment subgrantee.

Multiple Awareness and Participation Mechanisms

Materials shared at in-person meetings and events are regularly posted on the Puerto Rico Broadband Program website: smartisland.pr.gov. The program's site describes the funds available for broadband and related initiatives in Puerto Rico, access to ongoing surveys, and information about the Affordable Connectivity Program subsidy. Residents can access the program's contact information to speak with a staff member by phone or reach them by email. Continuous updates include past and upcoming events, recent news, and open Requests for Proposals to partner with the Puerto Rico Broadband Program.

A combination of traditional and social media has supported the Puerto Rico Broadband Program's awareness efforts. The Puerto Rico Broadband Program has frequently shared updates in newsletters, social media, radio, and in newspapers. To receive public comments, the Puerto Rico Broadband Program has posted public comment drafts online and announced comment periods through official press release, social media, and newsletters. The Puerto Rico Broadband

Program has accepted feedback through online comment form, by mail, during listening sessions, and in meetings with stakeholders.

Partner community organizations have supported efforts to reach residents by distributing information to the communities they work with daily. Government agencies, including the Puerto Rico Administration for Socioeconomic Development of the Family ADSEF), and community organizations, such as Puerto Rico's American Association of Retired Persons (AARP) chapters, have shared feedback from residents for use in planning. The Puerto Rico Broadband Program is continuing to work with local organizations to distribute information on planned programs, further described below in Underrepresented Engagement.

Transparency

The Puerto Rico Broadband Program has developed clear procedures to promote transparency throughout implementation of BEAD funding.

The Puerto Rico Broadband Program notifies residents through press release of upcoming feedback periods and maintains updated information on its website and social media platforms. At smartisland.pr.gov, residents can access all submissions to NTIA, a history of requests for proposals, past and upcoming events, newsletters, contact information, and additional plan materials. The Puerto Rico Broadband Program will develop brief reports on broadband efforts to accompany NTIA submissions, including reports on the outcomes of public comment periods and their impact on the Puerto Rico Broadband Program's planning.

In addition to the transparency reports described above, the Puerto Rico Broadband Program will continue to involve a diverse set of stakeholders in planning through ongoing public meetings, social media and newsletters, email outreach, collaboration with nonprofits and community organizations, and recurring committee meetings such as the monthly convening of the Digital Equity Advisory Subcommittee.

Underrepresented Engagement

Building from efforts during the Five-Year Action and Digital Equity Plans, the Puerto Rico Broadband Program has continued to engage with underrepresented communities. The Puerto Rico Broadband Program incorporates information from meetings with community organizations and data collection focused on the needs of residents in underrepresented communities. Figure 6 below describes four activities conducted by the Puerto Rico Broadband Program during planning that have outlined needs of underrepresented residents and plans for addressing those needs.

Figure 6: Data Collection for Underrepresented Communities

Activity	Purpose	Key Takeaways
Covered Population and Underrepresented Community Interviews	Interview series with organizations representing all eight (8) covered populations, unserved and underserved communities ⁸	Digital equity barriers and service options in rural areas of Puerto Rico
Survey of Key Organizations on Existing Digital Inclusion Initiatives	Online form and email distribution to government agencies, higher education, nonprofits, philanthropy, service providers, private entities	Needs for workforce strategies, affordability programs, and support for increased use of online resources that does not burden nonprofit organizations
Digital Equity Survey for Unserved and Underserved Residents	Phone dial survey of residents unreachable through online distribution	Assessment of device and internet use, privacy, and cybersecurity practices
Connectivity Survey and Speed Test	Online service survey and optional speed test administered at public service events and shared through email newsletters, social media, and the PRBP website	Information on provider choices, available speeds, service costs, and technology use of residents across Puerto Rico

As described above, the Puerto Rico Broadband Program relies on regular input from stakeholders. The Puerto Rico Broadband Program continues to convene the Digital Equity Advisory Subcommittee on a monthly basis to evaluate digital equity efforts and plan deployment programs that focus on connecting underrepresented communities.

Underrepresented engagement remains a priority for the Puerto Rico Broadband Program, acknowledging that over 40% of Puerto Ricans live below the poverty line. In alignment with our commitments outlined in the Five-Year Action and Digital Equity Plans, the program embarks on activities tailored to engage underrepresented communities—including racial and ethnic minorities, economically disadvantaged groups, and individuals with disabilities—through mechanisms like the Digital Inclusion Survey, a Digital Equity Phone Dial Survey, and a Connectivity Survey. Our efforts extend to conducting interviews with organizations that advocate for these covered populations, as well as unserved and underserved communities. We have further facilitated a series of listening sessions with community members and leaders across the island, enriching our understanding of their unique challenges and needs. The invaluable feedback received regarding service affordability, workforce development needs, and the missions of local organizations has been instrumental in refining our project logistics. In addition to conducting phone interviews to collect data on unserved and underserved areas, the Digital Equity Advisory Subcommittee convenes monthly. This committee, which includes representatives from marginalized communities such as women, racial/Hispanic minorities, and indigenous peoples, plays a critical role in evaluating digital equity efforts. Together, we strategize on deploying programs that not only connect underrepresented communities but also foster meaningful collaborations, ensuring that our initiatives are inclusive and equitable.

Through these concerted efforts, the Puerto Rico Broadband Program is committed to bridging the digital divide and achieving digital equity for all Puerto Ricans.

In an island-wide community leaders summit, the Puerto Rico Broadband Program carved out a space to both present our objectives and initiatives and engage directly with community leaders, discussing the digital divide in served, unserved, and underserved areas. This engagement sparked the interest of these leaders in receiving training on digital equity issues, empowering them to become digital navigators within their communities.

2.3.1.1 Attachment: As a required attachment, submit the Local Coordination Tracker Tool to certify that the Eligible Entity has conducted coordination, including with Tribal Governments, local community organizations, unions and work organizations, and other groups.

The Puerto Rico Broadband Program developed a complete list of local coordination with community organizations, unions and work organizations, and other groups.

2.3.2 Text Box: Describe the formal tribal consultation process conducted with federally recognized Tribes, to the extent that the Eligible Entity encompasses federally recognized Tribes. If the Eligible Entity does not encompass federally recognized Tribes, note "Not applicable."

Not applicable.

⁸ Puerto Rico's unique demographics in the context of the rest of the United States mean that nearly all Puerto Ricans (99.8%) are considered part of the Digital Equity Act's "covered populations." In response, the Puerto Rico Broadband Program has pursued full geographic coverage to engage as many residents as possible and engaged covered populations that have specific needs in Puerto Rico, including individuals in households below the poverty level, older adults, incarcerated individuals, veterans, people with disabilities, people with low literacy and limited English proficiency, and rural individuals.

Req. 8. Deployment Subgrantee Selection

Deployment Subgrantee Selection Process & Scoring Approach

2.4.1 Text Box: Describe a detailed plan to competitively award subgrants to last-mile broadband deployment projects through a fair, open, and competitive process.

Existing commitments for deployment of last mile broadband service in Puerto Rico have shaped the Puerto Rico Broadband Program's approach to BEAD implementation. Two (2) internet service providers, Claro and Liberty, are mandated to build and deliver universal service by 2028 with \$127.1 million in fixed broadband support through the FCC's Uniendo a Puerto Rico Program (Uniendo Program).⁹ Acknowledging existing commitments, the Puerto Rico Broadband Program will not award BEAD subgrants for the deployment of last-mile service.

The Puerto Rico Broadband Program will complement, rather than duplicate, the Uniendo Program obligations by investing in Puerto Rico's backhaul infrastructure and establishing paths for long-term, resilient connections for all residents. See Requirement 9 for the Puerto Rico Broadband Program's plan for a fair, open, and competitive selection process for an island-wide conduit system.

2.4.2 Text Box: Describe how the prioritization and scoring process will be conducted and is consistent with the BEAD NOFO requirements on pages 42 – 46.

In lieu of last-mile deployment projects, the Puerto Rico Broadband Program will be assessing bids for the development and management of a conduit route throughout Puerto Rico. The Puerto Rico Broadband Program has maintained BEAD NOFO priorities for subgrantee selection as applicable to the conduit project. For more information on the subgrantee selection process for the conduit system, see Requirement 9.

2.4.2.1 Attachment: As a required attachment, submit the scoring rubric to be used in the subgrantee selection process for deployment projects. Eligible Entities may use the template provided by NTIA, or use their own format for the scoring rubric.

The Puerto Rico Broadband Program will not conduct a subgrantee selection process for last-mile deployment projects. See Requirement 9 and enclosed Appendix A for the conduit system description and scoring rubric.

2.4.3 Text Box: Describe how the proposed subgrantee selection process will prioritize Unserved Service Projects in a manner that ensures complete coverage of all unserved locations prior to prioritizing Underserved Service Projects followed by prioritization of eligible CAIs.

Given that service providers Claro and Liberty have already committed to deploying service to all broadband serviceable locations by 2028, thereafter Puerto Rico will not have unserved or underserved locations to be addressed by BEAD implementation.¹⁰

⁹ Uniendo a Puerto Rico Fund and the Connect USVI Fund, Order, WC Docket Nos. 18-143, 10-90, 14-58, 34 FCC Rcd 9109 (Sept. 30, 2019) (PR-USVI Stage 2 Order).
https://docs.fcc.gov/public/attachments/FCC-19-95A1_Rcd.pdf.

¹⁰ For more information on FCC's Uniendo Program deployment obligations, see the Five-Year Action Plan.

Puerto Rico's BEAD subgrantee selection process will complement these federal commitments by investing in resilient infrastructure throughout Puerto Rico. The Uniendo Program did not require providers to install buried fiber.¹¹ Though the Uniendo Program's commitments will deliver service, Puerto Rico needs a more long-term network that promotes resilient, buried infrastructure without additional pole attachments. The Puerto Rico Broadband Program's conduit system will promote sustained coverage in Puerto Rico.

The conduit system described in Requirement 9 will enable a variety of users to support more resilient and scalable last-mile, middle-mile, and backhaul services throughout Puerto Rico. While designing the conduit project, the Puerto Rico Broadband Program and its partners will plan a core route that enables gigabit connections for community anchor institutions while providing access points for other areas that lack the connections needed for high-speed service. The Puerto Rico Broadband Program will select a conduit developer and manager committed to carrier neutrality and capable of efficient construction of the full route.

2.4.4 Text Box: If proposing to use BEAD funds to prioritize non-deployment projects prior to, or in lieu of the deployment of services to eligible CAIs, provide a strong rationale for doing so. If not applicable to plans, note "Not applicable."

The Puerto Rico Broadband Program will provide funding for an island-wide conduit system, devices, digital literacy training, and workforce development non-deployment activities, as described in Requirement 9, prior to deployment of services to eligible community anchor institutions. Existing commitments will ensure universal service to all broadband serviceable locations, and the proposed conduit system will enable long-term, resilient access to previously unserved areas throughout Puerto Rico, facilitating high-quality service for community anchor institutions. Efficient design of the conduit system will allow the Puerto Rico Broadband Program to prioritize critical non-deployment projects that will support connecting all residents to affordable, high-speed internet and technology.

With the proposed conduit system, the Puerto Rico Broadband Program is prioritizing the resiliency and future scalability of fiber service availability, including to Community Anchor Institutions. Most of Puerto Rico is subject to fiber-to-the-end user build out requirements under the FCC's Uniendo Program. While the existing commitments do not require service providers Claro and Liberty to provide symmetrical gigabit service to community anchor institutions, fiber operators are very likely to be able to provide community anchor institutions gigabit service by 2028. In the limited locations without existing fiber commitments, the Puerto Rico Broadband Program will ensure the conduit route passes community anchor institutions in those areas.

To support connection of community anchor institutions following development of the conduit system, the Puerto Rico Broadband Program will utilize the PRBIF to target deployment of fiber-based services in the resilient conduit to community anchor institution locations.

Through data collection for the Digital Equity and Five-Year Action Plans, the Puerto Rico Broadband Program identified significant needs in Puerto Rico and some of the largest digital

¹¹ Uniendo a Puerto Rico Fund and the Connect USVI Fund, Order, WC Docket Nos. 18-143, 10-90, 14-58, 34 FCC Rcd 9109 (Sept. 30, 2019) (PR-USVI Stage 2 Order).
https://docs.fcc.gov/public/attachments/FCC-19-95A1_Rcd.pdf.

equity gaps in the United States.¹² These gaps require substantial funding and must be addressed prior to service deployments to support use of the services by the Puerto Ricans who need it most. See Requirement 9 for proposed BEAD non-deployment activities in Puerto Rico.

2.4.5 Text Box: The proposed subgrantee selection process is expected to demonstrate to subgrantees how to comply with all applicable Environmental and Historic Preservation (EHP) and Build America, Buy America Act (BABA) requirements for their respective project or projects. Describe how the Eligible Entity will communicate EHP and BABA requirements to prospective subgrantees, and how EHP and BABA requirements will be incorporated into the subgrantee selection process.

Though the conduit system is considered part of non-deployment subgrantee selection, the Puerto Rico Broadband Program will require EHP and BABA compliance and communicate those requirements to each prospective conduit subgrantee through compliance guidance on the smartisland.pr.gov website, webinars, and in-person meetings.¹³

The Puerto Rico Broadband Program will require from prospective subgrantees a description of how the applicant plans to comply with all applicable federal and Puerto Rico environmental laws in application materials provided to each applicant.

After a subgrantee is selected, the Puerto Rico Broadband Program will require the subgrantee to download and complete an additional environmental questionnaire as well as a Floodplain Status certification, as applicable, prior to requesting a Notice to Proceed with pre-construction activities. Once the notice is issued by the Puerto Rico Broadband Program, the subgrantee can then begin pre-construction activities, which involve expenditures on “soft cost” items such as engineering functions, permit applications, right-of-way practices, and associated logistical efforts.

The Puerto Rico Broadband Program will emphasize minimizing adverse environmental impacts at every stage of the project(s). In published compliance materials and outreach to prospective subgrantees, the Puerto Rico Broadband Program will communicate that all prospective subgrantees must have the ability to obtain all applicable federal and local Government permits and approvals needed for the project, should they be selected. All prospective subgrantees must have a plan for complying with all applicable environmental and National Historic Preservation Act (NHPA) requirements. The Puerto Rico Broadband Program will develop questions in the application materials that will guide prospective subgrantee descriptions for compliance with EHP and BABA requirements. The Puerto Rico Broadband Program will ask each prospective subgrantee to describe how it will comply with applicable environmental and national historical preservation requirements.

At the grant agreement stage, the Puerto Rico Broadband Program will require the selected subgrantee to complete an environmental law applicability checklist regarding various

¹² See the Digital Equity and Five-Year Action Plans for more information on the current state of digital equity in Puerto Rico.

¹³ The Puerto Rico Broadband Program considers NTIA’s “deployment” subgrantee selection to concern last-mile service projects. As such, Puerto Rico will only select “non-deployment” subgrantees for development and operation of the conduit system, affordable device, and digital navigator programs.

environmental laws. Submission and approval of the environmental checklist, among other exhibits to the grant agreement, will be a mandatory precondition to obtain a Notice to Proceed with Pre-Construction Activities as part of the grant administration process.

Within the grant agreement, the Puerto Rico Broadband Program will specify certain applicable environmental provisions including but not limited to:

- The Clean Air Act,
- Clean Water Act,
- Comprehensive Environmental Response, Compensation and Liability Act,
- Endangered Species Act,
- Marine Protection, Research and Sanctuaries Act,
- National Environmental Policy Act,
- Resources Conservation and Recovery Act,
- Federal Water Pollution Control Act, and
- Dig Once Policy.

In addition, the grant agreement will also require the subgrantee to refrain from undertaking any construction activities until the subgrantee or its contractors/subcontractors have submitted all applicable permits and clearances to the Puerto Rico Broadband Program and have received a Notice to Proceed following review of such permits and clearances. This requirement will apply to all parties in the development process, including public or non-profit subgrantees and any of their contractors.

Furthermore, the Puerto Rico Broadband Program will require the subgrantee to provide all available environmental information about the project and respond to any requests for information on environmental reviews. The subgrantee will be required to provide timely notice to the Puerto Rico Broadband Program of the following:

- Any proposed changes in project scope or changes in environmental conditions;
- Changes in the nature, extent, magnitude, scope, or location of the project;
- The addition of new activities not anticipated in the original scope of projects;
- The selection of an alternative not in the original application or environmental review; and
- New circumstances or environmental conditions which may affect the project or have bearing on its impact, such as concealed or unexpected conditions discovered during project implementation.

For National Environmental Policy Act (NEPA) compliance, each prospective subgrantee will be required to cooperate with any information requests from the Puerto Rico Broadband Program related to construction projects and/or ground disturbing activities. Following the award, the selected subgrantee will be required to obtain all necessary Federal and local Governmental permits and approvals necessary for the proposed work to be conducted. The Puerto Rico Broadband Program will support prospective subgrantees by communicating all requirements throughout the subgrantee selection process.

Local Environmental Permitting

In addition to compliance with the applicable federal environmental compliance and permitting requirements above, the subgrantee must also comply with local rules and regulations. The Puerto Rico Broadband Program will work with the subgrantee to ensure that it is in compliance with the unified permitting process in Puerto Rico established by the Permit Management Office (OGPe, by its acronym in Spanish).¹⁴ Utilizing the Single Permit mechanism,¹⁵ the local permitting process is a unified process in Puerto Rico, which is a “one-stop” process for compliance with local permitting.¹⁶ The subgrantee will be required to permit the broadband construction/engineering project through the OGPe by complying with the Single Permit requirements.

The local permitting requirements that will apply to a particular subgrantee’s project will depend on the specific type of activity to be permitted and the location of the activity. The subgrantee will be required to identify the parcel upon which the proposed activity will take place using the Puerto Rico Planning Board’s (PRPB;¹⁷ *Junta de Planificación*, in Spanish) online GIS resource.¹⁸ Depending on the location selected, this resource lists the applicable codes for the project that must be consulted.

Once the subgrantee has developed its high-level design for a proposed project, it will be submitted to OGPe for due process and review. It should be noted that even if the U.S. Army Corps of engineers has jurisdiction over a project, the OGPe shall still be required to be consulted above for the local permitting requirements in accordance with the Joint Regulations and the local permitting requirements depending on the type of activity and location of the project.

Build America Buy America Act

For BABA compliance, the Puerto Rico Broadband Program will emphasize the following requirements in its outreach efforts and subgrantee materials:

- Iron and Steel Products: That all iron and steel products utilized by the subgrantee or any contractors and subcontractors in its proposed project have undergone all manufacturing processes, from the initial melting state through the application of coatings, in the U.S. unless a waiver is granted;
- Manufactured Products: That all manufactured products used in its BEAD funded project are manufactured in the U.S. In determining whether a product is produced in America,

¹⁴ Government of Puerto Rico, “Development.” <https://www.permisos.ddec.pr.gov/>.

¹⁵ Pursuant to Act No. 161-2009, as amended (known as the Puerto Rico Permit Process Reform Act).

¹⁶ Government of Puerto Rico, “Junta de Planificación.”

https://gis.jp.pr.gov/Externo_Econ/Datos%20JP/Reglamento%20Conjunto%202020%20-Vigencia%202%20Enero%202021.pdf.

¹⁷ The PRPB is the Government’s entity created pursuant to Act No. 75-1975, as amended, tasked with the general purpose of guiding the comprehensive development in a coordinated, adequate, and economic manner, with the end goal of promoting economic and social well-being in the development procedures, among other things.

¹⁸ Government of Puerto Rico, “Mapa Interactivo de Puerto Rico,” October 26, 2023,

https://gis.jp.pr.gov/mipr/?_ga=2.211718037.1286566824.1670594078-.399807784.1661448601&_gl=1*1tnbdfi*_ga*Mzk5QDA3Nzg0LjE2NiE0NDQ2MDE.*_ga_Z7MEG30P8C*MTY3MDU5NDA3Ny44LjEuMTY3MDU5NDI2NC4wLjAuMA.

the subgrantee must comply with the definitions included in Section 70912 of BABA, which provides that a manufactured product is considered produced in the United States if the manufactured product was manufactured in the United States and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent (55%) of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation;

- **Construction Materials:** For construction materials, the subgrantee and its contractors must certify that construction materials including but not limited to non-ferrous metals; plastic and polymer-based products (including polymers used in fiber optic cables); glass (including optic glass); lumber; and drywall used by the subgrantee and any contractors and subcontractors have undergone all manufacturing processes domestically;
- In addition to the provisions above, the subgrantee may not use BEAD funding to purchase or support any covered telecommunications equipment or service, as defined in Section 9 of the Secure and Trusted Communications Network Act of 2019 (47 U.S.C. § 1608); and
- The IIJA expressly prohibits the subgrantee from using BEAD funding to purchase or support fiber optic cable and optical transmission equipment manufactured in the People's Republic of China unless a waiver of this requirement is received from the Assistant Secretary of Commerce for Communications and Information.

The Puerto Rico Broadband Program will also include language relating to subgrantee requirements relative to BABA within the grant agreement. This BABA section of the grant agreement shall outline the BABA requirements as applicable to the project and outline the limited scenarios/conditions under which a waiver of BABA requirements may be obtained.

The Puerto Rico Broadband Program will communicate federal environmental law and BABA compliance requirements throughout the subgrantee selection process, including in discussion with prospective subgrantees, compliance materials, and post-award meetings with the selected subgrantee. The subgrantee compliance materials developed by the Puerto Rico Broadband Program will include guidance based on the BEAD NOFO and reference underlying regulations, such as the as the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, as codified in 2 C.F.R. Part 200 (Federal Uniform Guidance). All compliance materials will be published on the smartisland.pr.gov website for prospective subgrantees.

It should be emphasized that the Federal Uniform Guidance expressly provides that certain compliance exceptions, including an exception that allows to apply less restrictive requirements when making fixed amount awards, as defined thereunder.¹⁹ Relying on this exception, the U.S. Department of the Treasury (U.S. Treasury), in its Supplementary Broadband Guidance (Treasury Supplemental Broadband Guidance), provided exceptions from certain requirements for subrecipients of fixed amount subawards.²⁰

¹⁹ See 2 CFR 200.102(c).

²⁰ United States Treasury, "SLFRF and CPF Supplementary Broadband Guidance" May 17, 2023, <https://home.treasury.gov/system/files/136/SLFRF-and-CPF-Supplementary-Broadband-Guidance.pdf>.

In keeping with the. Treasury Supplemental Guidance concerning the administration of funding for broadband projects under the American Rescue Plan Act of 2021 (ARPA; Pub. L. 117-2), the Puerto Rico Broadband Program will make subawards that provide for a maximum payment amount that is calculated based on a reasonable estimate of actual cost (see 2 CFR 200.201[b][1], of the Federal Uniform Guidance). These will be considered fixed amount subawards even if the subaward agreement also provides that payments to the subrecipient will be limited to actual costs after review of evidence of costs.²¹

Like the U.S. Treasury's guidance, NTIA is proposing exceptions to certain provisions of the Federal Uniform Guidance that would apply to the BEAD Program, including the above flexibility for Eligible Entities to issue fixed amount subawards.²² NTIA has advised Eligible Entities to proceed with issuing fixed amount subawards, and that exceptions or adjustments will apply to these subawards.²³ As such, the Puerto Rico Broadband Program wishes to avail its subrecipients of the aforementioned exceptions and adjustments to the Federal Uniform Guidance that NTIA applies in the BEAD Program. Should any revisions to this Initial Proposal be needed to accomplish this objective, the Puerto Rico Broadband Program would like an opportunity to make those revisions.

2.4.6 Text Box: Describe how the Eligible Entity will define project areas from which they will solicit proposals from prospective subgrantees. If prospective subgrantees will be given the option to define alternative proposed project areas, describe the mechanism for de-conflicting overlapping proposals to allow for like-to-like comparisons of competing proposals.

Puerto Rico's approach is to complement, rather than duplicate, the obligations that carriers Claro and Liberty have through the Uniendo Program to extend broadband service universally across Puerto Rico.²⁴ Recognizing these commitments, the Puerto Rico Broadband Program will not deploy last-mile broadband with BEAD funding but will instead accept applications for the development and management of an open access conduit network. This network will be island-wide, covering all geographic areas of Puerto Rico. The Puerto Rico Broadband Program will ensure through development with all bidders, engineering, and stakeholder partners that the conduit route is designed for universal coverage, including rural locations, and that any prospective subgrantees are prepared to deliver the complete route. Specific project routes will be identified through the engineering process prior to the competitive bids, and will reflect the following factors:

- Ability to interconnect with and complement existing resilient conduit and dark fiber facilities available on reasonable and carrier-neutral terms;
- Interconnection with colocation facilities and landing stations, especially those to be created through the Puerto Rico Broadband Program's complementary CPF-supported projects, made available under ARPA;

²¹ United States Treasury, "SLFRF and CPF Supplementary Broadband Guidance."

²² Department of Commerce, "Tailoring the Application of the Uniform Guidance to the BEAD Program; Request for Comments, July 5, 2023, 88 FR 42918. <https://www.govinfo.gov/content/pkg/FR-2023-07-05/pdf/2023-14114.pdf>

²³ PowerPoint, NTIA SBLN Meeting: Proposed Exceptions to Uniform Guidance for BEAD, October Meeting #1, Oct. 10, 2023.

²⁴ For more information on federal Uniendo deployment obligations, see the Five-Year Action Plan.

- Creation of resilient routes that connect more rural communities with more densely developed parts of Puerto Rico; and
- Ability to pass close to eligible community anchor institutions.

See Requirement 9 for more information on conduit route selection.

2.4.7 Text Box: If no proposals to serve a location or group of locations that are unserved, underserved, or a combination of both are received, describe how the Eligible Entity will engage with prospective subgrantees in subsequent funding rounds to find providers willing to expand their existing or proposed service areas or other actions that the Eligible Entity will take to ensure universal coverage.

The Puerto Rico Broadband Program and its engineering partners will design a conduit route that covers all regions of Puerto Rico, sufficient for multiple users to serve a variety of purposes, including resilient last-mile service, institutional connections, and wireless backhaul. Prospective subgrantees will be expected to construct and manage the complete route, according to the terms of the subgrant agreement. The scoring criteria in Requirement 9 provide additional detail on how the Puerto Rico Broadband Program is ensuring all prospective subgrantees have the information to build competitive bids for the island-wide conduit system and will have the capacity to deliver if selected.

2.4.8 Text Box: Describe how the Eligible Entity intends to submit proof of Tribal Governments' consent to deployment if planned projects include any locations on Tribal Lands.

Not applicable.

2.4.9 Text Box: Identify or outline a detailed process for identifying an Extremely High Cost Per Location Threshold to be utilized during the subgrantee selection process. The explanation must include a description of any cost models used and the parameters of those cost models, including whether they consider only capital expenditures or include the operational costs for the lifespan of the network.

Puerto Rico will not select BEAD subgrantees for last-mile broadband deployment projects but will instead select a single subgrantee to develop and manage an island-wide conduit route. In place of an Extremely High Cost Per Location Threshold, the Puerto Rico Broadband Program will use an estimated cost developed by a contracted engineer to set a benchmark grant cost for the conduit network. For more information on the engineering services that will support BEAD implementation in Puerto Rico, see Requirement 9.

2.4.10 Text Box: Outline a plan for how the Extremely High Cost Per Location Threshold will be utilized in the subgrantee selection process to maximize the use of the best available technology while ensuring that the program can meet the prioritization and scoring requirements set forth in Section IV.B.6.b of the BEAD NOFO. The response must describe:

- The process for declining a subgrantee proposal that exceeds the threshold where an alternative technology is less expensive.**
- The plan for engaging subgrantees to revise their proposals and ensure locations do not require a subsidy.**

c. The process for selecting a proposal that involves a less costly technology and may not meet the definition of Reliable Broadband.

As the Puerto Rico Broadband Program will not fund last-mile deployment with BEAD, this does not apply to Puerto Rico. Because Puerto Rico is subject to the last mile commitments made under the Uniendo Program, the proposed conduit system will focus on making deployments of fiber infrastructure more resilient and therefore reliable through use of underground conduit.

Deployment Subgrantee Qualifications

2.4.11 Text Box: Describe how the Eligible Entity will ensure prospective subgrantees deploying network facilities meet the minimum qualifications for financial capability as outlined on pages 72-73 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity may reference those to outline alignment with requirements for this section. The response must:

a. Detail how the Eligible Entity will require prospective subgrantees to certify that they are qualified to meet the obligations associated with a Project, that prospective subgrantees will have available funds for all project costs that exceed the amount of the grant, and that prospective subgrantees will comply with all Program requirements, including service milestones. To the extent the Eligible Entity disburses funding to subgrantees only upon completion of the associated tasks, the Eligible Entity will require each prospective subgrantee to certify that it has and will continue to have sufficient financial resources to cover its eligible costs for the Project until such time as the Eligible Entity authorizes additional disbursements.

Detail how the Eligible Entity plans to establish a model letter of credit substantially similar to the model letter of credit established by the FCC in connection with the Rural Digital Opportunity Fund (RDOF).

c. Detail how the Eligible Entity will require prospective subgrantees to submit audited financial statements.

Puerto Rico will not have any deployment projects. These sections are not required for non-deployment projects.

d. Detail how the Eligible Entity will require prospective subgrantees to submit business plans and related analyses that substantiate the sustainability of the proposed project.

See Requirement 9 for how the Puerto Rico Broadband Program will ensure each prospective subgrantee for the conduit system submits audited financial statements and business plans to substantiate the sustainability of the project.

2.4.12 Text Box: Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for managerial capability as outlined on pages 73 – 74 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how the Eligible Entity will require prospective subgrantees to submit resumes for key management personnel.**
- b. Detail how it will require prospective subgrantees to provide a narrative describing their readiness to manage their proposed project and ongoing services provided.**

See Requirement 9 for how the Puerto Rico Broadband Program will ensure prospective subgrantees for the conduit system program meet managerial capability qualifications.

2.4.13 Text Box: Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for technical capability as outlined on page 74 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how the Eligible Entity will require prospective subgrantees to certify that they are technically qualified to complete and operate the Project and that they can carry out the funded activities in a competent manner, including that they will use an appropriately skilled and credentialed workforce.**

See Requirement 9 for how the Puerto Rico Broadband Program will ensure prospective subgrantees for the conduit system program meet technical capability qualifications.

2.4.13 Text Box (cont.): b. Detail how the Eligible Entity will require prospective subgrantees to submit a network design, diagram, project costs, build-out timeline and milestones for project implementation, and a capital investment schedule evidencing complete build-out and the initiation of service within four years of the date on which the entity receives the subgrant, all certified by a professional engineer, stating that the proposed network can deliver broadband service that meets the requisite performance requirements to all locations served by the Project.

See Requirement 9 for conduit system implementation details and materials the Puerto Rico

Broadband Program will require to ensure technical capability of the selected subgrantee.

2.4.14 Text Box: Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for compliance with applicable laws as outlined on page 74 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how the Eligible Entity will require prospective subgrantees to demonstrate that they can carry out funded activities in a competent manner in compliance with all applicable federal, state, territorial, and local laws.
- b. Detail how the Eligible Entity will require prospective subgrantees to permit workers to create worker-led health and safety committees that management will meet with upon reasonable request.

See Requirement 9 for how the Puerto Rico Broadband Program will ensure all prospective subgrantees for the conduit system, device program, digital navigator program, and workforce development program comply with applicable laws.

2.4.15 Text Box: Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for operational capability as outlined on pages 74 – 75 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how the Eligible Entity will require prospective subgrantees to certify that they possess the operational capability to qualify to complete and operate the Project.
- b. Detail how the Eligible Entity will require prospective subgrantees to submit a certification that have provided a voice, broadband, and/or electric transmission or distribution service for at least two (2) consecutive years prior to the date of its application submission or that it is a wholly owned subsidiary of such an entity, attests to and specify the number of years the prospective subgrantee or its parent company has been operating.
- c. Detail how the Eligible Entity will require prospective subgrantees that have provided a voice and/or broadband service, to certify that it has timely filed Commission Form 477s and the Broadband DATA Act submission, if applicable, as required during this time period, and otherwise has complied with the Commission's rules and regulations.
- d. Detail how the Eligible Entity will require prospective subgrantees that have operated only an electric transmission or distribution service, to submit qualified operating or financial reports, that it has filed with the relevant financial institution for the relevant time period along with a certification that the submission is a true and accurate copy of the reports that were provided to the relevant financial institution.
- e. In reference to new entrants to the broadband market, detail how the Eligible Entity will require prospective subgrantees to provide evidence sufficient to demonstrate that the newly formed entity has obtained, through internal or external resources, sufficient operational capabilities.

As Puerto Rico will not be making subgrants for last-mile broadband service with BEAD funds, prospective subgrantees will instead be required to submit reports that demonstrate their

qualifications to construct and operate an island-wide conduit system. See Requirement 9 for how the Puerto Rico Broadband Program will ensure the selected subgrantee for the conduit system has sufficient operational capability.

2.4.16 Text Box: Describe how the Eligible Entity will ensure that any prospective subgrantee deploying network facilities meets the minimum qualifications for providing information on ownership as outlined on page 75 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity may reference those to outline alignment with requirements for this section. The response must:

a. Detail how the Eligible Entity will require prospective subgrantees to provide ownership information consistent with the requirements set forth in 47 C.F.R. § 1.2112(a)(1)-(7).

Though the proposed conduit system is considered a BEAD “non-deployment” project, the Puerto Rico Broadband Program will ensure that applicants provide information on ownership that is consistent with the FCC’s Ownership Disclosure Requirements for Applications, as codified in 47 C.F.R. § 1.2112(a)(1)-(7). During the competitive bidding process for the conduit system, the Puerto Rico Broadband Program will require that applicants provide information consistent with this portion of the Code of Federal Regulations. Each applicant will be required to provide the information outlined below.

1. List the real party or parties in interest in the applicant or application, including a complete disclosure of the identity and relationship of those persons or entities directly or indirectly owning or controlling (or both) the applicant.
2. List the name, address, and citizenship of any party holding ten percent (10%) or more of stock in the applicant, whether voting or nonvoting, common or preferred, including the specific amount of the interest or percentage held.
3. List, in the case of a limited partnership, the name, address and citizenship of each limited partner whose interest in the applicant is ten percent (10%) or greater (as calculated according to the percentage of equity paid in or the percentage of distribution of profits and losses).
4. List, in the case of a general partnership, the name, address and citizenship of each partner, and the share or interest participation in the partnership.
5. List, in the case of a limited liability company, the name, address, and citizenship of each of its members whose interest in the applicant is ten percent (10%) or greater.
6. List all parties holding indirect ownership interests in the applicant as determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain, that equals ten percent (10%) or more of the applicant, except that if the ownership percentage for an interest in any link in the chain exceeds fifty percent (50%) or represents actual control, it shall be treated and reported as if it were a one hundred percent (100%) interest.
7. List any FCC entity or applicant for an FCC license, in which the applicant or any of the parties identified in paragraphs (a)(1) through (a)(5) of this section, owns ten 10 percent (10%) or more of stock, whether voting or nonvoting, common or preferred; this list must include a description of each such entity’s principal business and a description of each such entity’s relationship to the applicant (e.g., Company A owns ten percent [10%] of Company B [the applicant] and ten percent [10%] of Company C, then Companies A and

C must be listed on Company B's application, where Company C is an FCC licensee and/or license applicant).

Applicants must also provide the following disclosures.

1. List the names, addresses, and citizenship of all officers, directors, affiliates, and other controlling interests of the applicant, as described in 47 C.F.R. § 1.2110, and, if a consortium of small businesses or consortium of very small businesses, the members of the conglomerate organization.
2. List any FCC entity or applicant for an FCC license, in which any controlling interest of the applicant owns a ten percent (10%) or greater interest or a total of ten percent (10%) or more of any class of stock, warrants, options or debt securities. This list must include a description of each such entity's principal business and a description of each such entity's relationship to the applicant.
3. List all parties with which the applicant has entered into agreements or arrangements for the use of any of the spectrum capacity of any of the applicant's spectrum.
4. List separately and in the aggregate the gross revenues, computed in accordance with 47 C.F.R. § 1.2110, for each of the following: the applicant, its affiliates, its controlling interests, and the affiliates of its controlling interests; and if a consortium of small businesses, the members comprising the consortium.
5. If applying as a consortium of designated entities, provide the information in paragraphs (b)(1)(i) through (v) of 47 C.F.R. § 1.2110 separately for each member of the consortium.

Applicants must also provide the information below as exhibits.

1. List the names, addresses, and citizenship of all officers, directors, and other controlling interests of the applicant, as described in 47 C.F.R. § 1.2110.
2. List any FCC entity or applicant for an FCC license, in which any controlling interest of the applicant owns a ten percent (10%) or greater interest or a total of ten percent (10%) or more of any class of stock, warrants, options or debt securities. This list must include a description of each such entity's principal business and a description of each such entity's relationship to the applicant.
3. List and summarize all agreements or instruments (with appropriate references to specific provisions in the text of such agreements and instruments) that support the applicant's eligibility as a small business under the applicable designated entity provisions, including the establishment of de facto or de jure control. Such agreements and instruments include articles of incorporation and by-laws, partnership agreements, shareholder agreements, voting or other trust agreements, management agreements, franchise agreements, spectrum leasing arrangements, spectrum resale (including wholesale) arrangements, and any other relevant agreements (including letters of intent), oral or written.
4. List and summarize any investor protection agreements, including rights of first refusal, supermajority clauses, options, veto rights, and rights to hire and fire employees and to appoint members to boards of directors or management committees.
5. List separately and in the aggregate the gross revenues, computed in accordance with § 1.2110, for each of the following: the applicant, its affiliates, its controlling interests, and

affiliates of its controlling interests; and if a consortium of small businesses, the members comprising the consortium.

6. List and summarize any agreements in which the applicant has entered into arrangements for the use of any of the spectrum capacity of the license that is the subject of the application.

2.4.17 Text Box: Describe how the Eligible Entity will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for providing information on other public funding as outlined on pages 75 – 76 of the BEAD NOFO. If the Eligible Entity opts to provide application materials related to the BEAD subgrantee selection process, the Eligible Entity may reference those to outline alignment with requirements for this section. The response must:

- a. Detail how it will require prospective subgrantees to disclose for itself and for its affiliates, any application the subgrantee or its affiliates have submitted or plan to submit, and every broadband deployment project that the subgrantee or its affiliates are undertaking or have committed to undertake at the time of the application using public funds.
- b. At a minimum, the Eligible Entity shall require the disclosure, for each broadband deployment project, of: (a) the speed and latency of the broadband service to be provided (as measured and/or reported under the applicable rules), (b) the geographic area to be covered, (c) the number of unserved and underserved locations committed to serve (or, if the commitment is to serve a percentage of locations within the specified geographic area, the relevant percentage), (d) the amount of public funding to be used, (e) the cost of service to the consumer, and (f) the matching commitment, if any, provided by the subgrantee or its affiliates.

While the Puerto Rico Broadband Program will not be making any subgrants for broadband service with BEAD funds, prospective subgrantees for the conduit system will be required to disclose prior applications and commitments for related projects. During the competitive bidding process, the Puerto Rico Broadband Program will require each prospective subgrantee to disclose, for itself and for its affiliates, any application the prospective subgrantee or its affiliates have submitted or plan to submit, and every related project that the prospective subgrantee or its affiliates are undertaking or have committed to undertake at the time of the application using public funds.

The Puerto Rico Broadband Program will require the disclosure of:

- The amount of public funding to be used;
- The matching commitment provided by the subgrantee or its affiliates;
- The geographic area to be covered; and
- The project description and rules as related to the proposed conduit project.

For more information on measures to assess the prospective subgrantee qualifications for the conduit developer, see Requirement 9 and enclosed Appendix A for the scoring rubric.

Req. 9. Non-Deployment Subgrantee Selection

Non-Deployment Subgrantee Selection Process

2.5.1 Text Box: Describe a fair, open, and competitive subgrantee selection process for eligible non-deployment activities. Responses must include the objective means, or process by which objective means will be developed, for selecting subgrantees for eligible non-deployment activities. If the Eligible Entity does not intend to subgrant for non-deployment activities, indicate such.

As the Puerto Rico Broadband Program will not utilize BEAD funds for last-mile service, all BEAD subgrantees in Puerto Rico will be considered “non-deployment” subgrantees. Non-deployment activities in Puerto Rico will support long-term, resilient infrastructure, increase digital equity, provide opportunity for Puerto Ricans, and strengthen the economy through technical skills.

The Puerto Rico Broadband Program will invest BEAD funds into the following non-deployment subgrantee programs:



Conduit System

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Affordable Device Program



Digital Navigator and Literacy Program



Workforce Development Grant Program

The following subsections describe procurement regulations, each of these funding uses, and how the Puerto Rico Broadband Program will select subgrantees to develop and operate each activity.

Procurement Regulations

The Government of Puerto Rico currently has in place several safeguards against collusion, bias, conflict of interest, and arbitrary decisions in the procurement procedures it carries out. Act No. 73-2019 (Act-73), as amended, created the Puerto Rico General Services Administration (ASG, for its Spanish acronym). In general, Act-73 empowers ASG with the necessary tools to streamline processes by establishing transparent and efficient methods that govern the acquisition of non-professional goods and services by the Government of Puerto Rico. On November 18, 2020, ASG issued Regulation Number 9230E, implementing several dispositions of

Act-73, titled "Uniform Regulation for Purchases and Bids of Goods, Works and Nonprofessional services of the General Services Administration of the Government of Puerto Rico".

Thereafter, regarding professional services providers, on August 26, 2021, ASG issued Regulation Number 9302E, titled "Regulation on the Sole Registry of Professional Service Providers for the Government of Puerto Rico". Said regulation was adopted with the aim of establishing the guidelines and procedures by way of which ASG shall prepare, administer, maintain, and manage the Sole Registry of Professional Service Providers (RUP, for its Spanish acronym). The RUP is an electronic registry which shall include the names, addresses, and all information required by ASG of the natural or legal persons qualified and classified to contract with the Government of Puerto Rico, after having met the requirements established by ASG's Administrator by way of this regulation and all other applicable laws and regulations.

Additionally, on April 27, 2021, the Governor of Puerto Rico issued Executive Order No. OE-2021-029 (the Contracting Executive Order), which requires the Government's agencies, instrumentalities, public corporations, and component units, to perform open, competitive, and public contracting process for contracts with valued above two hundred fifty thousand dollars (\$250,000), including any amendments thereto, during the same fiscal year. This requirement applies to contracts funded completely or partially funded with federal funds if this requirement is not inconsistent with applicable federal regulations.

Thereafter, on June 7, 2021, OMB issued Circular Letter No. 013-2021, establishing uniform guidelines to comply with the Contracting Executive Order.

Furthermore, the Puerto Rico Innovation and Technology Service (PRITS), created by Act No. 75-2019 (Act- 75), issued Administrative Order No.: PRITS-2023-001, on March 15, 2023. PRITS is the Executive Branch's office in charge of implementing, developing, and coordinating the Government's public policy regarding innovation, information, and technology, and is in charge of implementing accountability systems that promote continuous improvement and innovation by aligning the organization of established expectations and goals, among other things. These systems, in turn must contribute to the more efficient use of governmental resources and increase the transparency in government management. Through said administrative order, PRITS established certain requirements and proceedings to review, evaluate and approve any and all projects, purchase, auction, request for proposal, contract or any established method for the acquisition of goods and/or services related in whole or in part to information systems or that impact data centers, cloud services, telephony, network infrastructure, equipment and security services information, digitization of procedures and services, data platforms, web pages and portals, mobile applications, services, applications, development of computer systems and systems in general, and any other covered by Act-75.

All of the aforementioned regulations (collectively, the Local Procurement Standards), are consistent with the Federal General Procurement Standards, as codified in 2 C.F.R. § 200.317, through § 200.327, and with the pertinent items of the BEAD Program NOFO's Program Structure, Sequencing and Requirements. In addition to the Local Procurement Standards, the Puerto Rico Broadband Program is developing a Contracts Policy and a Procurement Policy, which are expected to be approved by the Broadband Executive Committee shortly (collectively, the Manuals).

The purpose of the Procurement Policy is to establish the standards and guidelines for the procurement processes of the Puerto Rico Broadband Program funded in whole or partially with local funds or federal funds. This document promotes the development and strength of a free competition policy, in which the parameters of reasonableness, participation, and transparency are pursued. Below are highlights of relevant sections of the Procurement Policy:

- Standards of Conduct and Conflict of Interest:
 - The Puerto Rico Broadband Program maintains, and must require that subgrantees, subrecipients, vendors, and contractors maintain a standards of conduct and conflict of interest policy to ensure the transparency of the selection, award, and administration of contracts.
 - No Puerto Rico Broadband Program or Puerto Rico Broadband Program-run Program employee may participate in the procurement selection and award process if they have a real or apparent conflict of interest. Employees may not solicit nor accept gratuities, favors, or anything of monetary value from proponents, vendors, or parties to contracts/subcontracts.
 -
- Full and Open Competition:
 - Federal and local regulations require procurement processes to be conducted in a manner that provides full and open competition. Some of the situations considered to be restrictive of competition include but are not limited to:
 - Placing unreasonable requirements on firms in order for them to qualify to do business;
 - Requiring unnecessary experience and excessive bonding;
 - Noncompetitive pricing practices between firms or between affiliated companies;
 - Noncompetitive contracts to consultants that are on retainer contracts;
 - Organizational conflicts of interest;
 - Specifying only a "brand name" product instead of allowing "an equal" product to be offered and describing the performance or other relevant requirements of the procurement; and
 - Any arbitrary action in the procurement process.
- Cost or Price Reasonability:
 - The Puerto Rico Broadband Program is committed to ensuring the responsible use of state and federal funds. With this commitment, cost reasonableness is particularly important. A determination that a price is fair and reasonable allows the Puerto Rico Broadband Program to be practical and exercise good judgement in the acquisition of goods and services.
 - Prior to entering into a contract, the Puerto Rico Broadband Program shall ensure that the cost or price is reasonable, as required by 2 CFR § 200.404. A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost. To ensure compliance with this requirement, the following tests must be performed, as applicable:
 - Independent Cost Estimate (ICE)
For procurements in excess of the Small Purchase threshold, the PRBP must perform an ICE for the work to be completed. The ICE will be a confidential document and shall not interfere with the open competition. The ICE must

establish the total estimated cost related to the execution of the relevant Scope of Work. It must be completed in the same manner as the cost or price is requested in the solicitation and must be properly supported by data and documentation. Supporting data and documentation may include, but is not limited to, commercial pricing and sales information to evaluate the reasonableness of the cost or price; average cost for similar work in the area; published cost from a national cost estimating database; or other evidence of the market price or documentation showing the reasonableness standard.

☐ Cost Analysis:

Cost analysis consists of the evaluation of separate cost elements that make up the offeror's total cost proposal to determine if they are allowable, directly related to the requirement, and reasonable. The Puerto Rico Broadband Program must perform a cost analysis in the following scenarios (however, a cost analysis is not required when the price can be established on the basis of catalog or market prices of commercial products or services, or when the price is established by law or regulation):

- ~ When supporting data on similar services is not available;
- ~ In negotiations with a sole source;
- ~ When a single proposal or sealed bids is received, and this is substantially different from the independent cost estimate;
- ~ When there is no data available to support the cost or price on a contract modification that impacts the contract scope and/or price.

☐ Price Analysis:

Price analysis consists of evaluating a proposed price without analyzing the elements that make up the total cost of the proposal. The Puerto Rico Broadband Program will perform this analysis in the following scenarios:

- When supporting data for similar services are available and/or when the price can be established on the basis of catalog or market prices of services, or when the price is established by law or regulation;
- When there is adequate competition;
- When there is available data to support the cost or price on a contract modification that impacts the contract scope and/or price.

• Recordkeeping:

- All transactions must have a procurement record through which OMB keeps sufficient detail of the history of that procurement and all relevant documents to the process.

At a minimum this record shall contain:

- ☐ Procurement method rationale,
- ☐ Selection of contract type,
- ☐ Contractor/Vendor selection or rejection; and
- ☐ Basis for the contract price.

- Additionally, depending on the procurement method utilized, documents related to the scope of work, selection criteria, independent cost estimate, advertisements, etc. shall be included in the procurement record.
- Following local and federal regulations, the procurement file is considered a public record, with consideration to applicable limitations regarding privileged/confidential information and shall be kept by the PRBP for a period of five (5) years. Exceptions to

the term for which records shall be maintained contained in special laws shall be followed.

- FAPIIS Updates:
 - Pursuant to Section 872 of the Infrastructure Act (41 USC 2313), if the total value of a recipient's currently active grants, cooperative agreements, and procurement contracts from all federal awarding agencies exceeds TEN MILLION DOLLARS (\$10,000,000) for any period of time during the period of performance of an award made under the NOFO, then the recipient shall be subject to the requirements specified in Appendix XII of the Federal Uniform Requirements, for maintaining the currency of information reported to SAM that is made available in the FAPIIS about certain, civil, criminal, or administrative proceedings involving the recipient.
 - Local Regulations:
 - For the procurement of Professional Services whose amount reaches or exceeds TWO HUNDRED AND FIFTY THOUSAND DOLLARS (\$250,000) in one (1) fiscal year, the PRBP must ensure an open, competitive, and public process. This process will guarantee transparent, efficient, sensitive, and fiscally responsible management, as required by the Contracting Executive Order as well as the Contracting Executive Order Guidelines. In addition to complying with federal and state legal requirements, among which are, but are not limited to, the Federal Uniform Guidelines, Act No. 237-2004, as amended, known as the "Act to Establish Uniform Parameters in the Contracting Processes of Professional and Consulting Services for Commonwealth Agencies and Government Entities", and Act-73, the PRBP must observe strict compliance with the Contracting Executive Order and the Contracting Executive Order Guidelines, as they may be amended, supplemented, or superseded from time to time.
-

Conduit System

Though existing broadband service commitments in Puerto Rico are for universal service to every broadband serviceable location, the Puerto Rico Broadband Program recognizes an outstanding need for reliable, climate-resilient infrastructure and a system that supports participation by multiple users. The Puerto Rico Broadband Program will issue a Notice of Funding Availability (NOFA) with BEAD non-deployment funding to select a subgrantee for the development and management of an open access underground conduit route throughout Puerto Rico.

Underground conduit will supply the reach and diversity of routes needed to ensure critical connection points and community anchor institutions can access reliable service through long-term, resilient infrastructure. The Puerto Rico Broadband Program will limit pole attachments and instead transform the island's telecommunications infrastructure with BEAD funding by installing buried, open access conduit. The conduit system will provide all of Puerto Rico scalable infrastructure with the ability to upgrade over time, facilitating long-term access to service for all residents. Further, the underground conduit will have the resiliency needed for adverse weather conditions. Investment of BEAD funding into an open access conduit system will provide decades of deployment throughout Puerto Rico.

The Puerto Rico Broadband Program is facilitating the creation of multiple resilient paths for service throughout Puerto Rico, beginning with this strategically designed conduit route. In parallel efforts through the CPF and the PRBIF, the Puerto Rico Broadband Program will develop programs to fund dark fiber and lit services that will ensure participation in the non-exclusive, BEAD-funded conduit system.

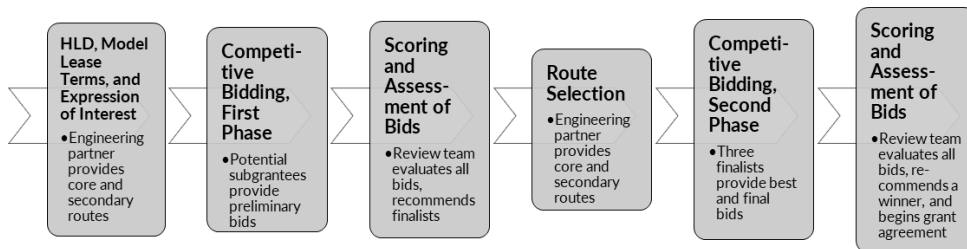
The Puerto Rico Broadband Program proposes to utilize BEAD non-deployment funds for this conduit as a principal investment in resilient infrastructure that will not only enable reliable service to community anchor institutions located along the route but will expand opportunities for a variety of industries to harden their infrastructure throughout Puerto Rico. The conduit system will allow multiple users and smaller carriers, including internet service providers, institutional users, utilities, and electric grid management, to collaborate with equal access. Using a "dig-once design," additional capacity will be built into the conduit system to enable future expansion. From planning through execution, the system will promote a cooperative approach amongst entities for access to new routes.

The Puerto Rico Broadband Program will conduct a competitive award process for a subgrantee to develop and manage the underground conduit, following the aforementioned Local Procurements Standards and Manuals. Meeting all requirements set forth by NTIA and the Puerto Rico Broadband Program in the criteria below, the subgrantee will be positioned to develop a complete network throughout Puerto Rico. The subgrantee managing the network, committed to the requirements of the Puerto Rico Broadband Program, will allow for the following:

- An open access conduit system with one manager, critical for tenants to supply service more quickly in areas previously left unconnected or with only 1 (one) access point and
- An interconnected network, enabling tenants to use the conduit from one region of to another without coordinating between multiple entities for access to the complete route.

The Puerto Rico Broadband Program will ensure the subgrantee selection process for the proposed conduit system project is fair, open, and competitive, following the aforementioned Local Procurements Standards and Manuals. The subgrantee selection process will include the following phases, summarized in Figure 7 and detailed below:

Figure 7: Conduit Subgrantee Selection Process



Route Selection, Model Lease Terms, and Expression of Interest

Engineering Services

For network design support and review of applications for the conduit system, the Puerto Rico Broadband Program will contract engineering services through the PRBIF. The professional engineering firm will provide:

- A conduit network design and diagram;
- Estimated project costs;
- Proposed build-out timeline; and
- Review of applications.

These engineering services are integral and necessary for successful implementation of BEAD funding at every phase of the award and will be considered an in-kind match contribution by the Puerto Rico Broadband Program. The engineering services described above must meet all criteria listed in the Federal Uniform Guidance.⁴² In-kind contributions, such as the contracted engineering services, will:

- Be verifiable from the Puerto Rico Broadband Program's records;
- Not be included as contributions for any other Federal award;
- Be necessary and reasonable for accomplishment of the project or program objectives;
- Be allowable under Subpart E of the Federal Uniform Guidance;⁴³

⁴² Uniform Administrative Requirements for Federal Awards, "2 CFR 200.306(b)," Code of Federal Regulations, October 11, 2023, <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.306>.

⁴³ Uniform Administrative Requirements for Federal Awards, "2 CFR 200.400(e)," Code of Federal Regulations, October 11, 2023, <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.400>.

[200/subpart-E.](#)

- Not be paid by the Federal Government under another Federal award, except where the Federal statute authorizing a program specifically provides that Federal funds made available for such program can be applied to matching or cost sharing requirements of other Federal programs;
- Be provided for in the approved budget when required by the Federal awarding agency; and
- Conform to other provisions of the Federal Uniform Guidance, as applicable.

In addition, the Federal Uniform Guidance require that rates for third-party volunteer services must be consistent with those paid for similar work.⁴⁴ Further, rates must be consistent with those paid for similar work in the labor market for the kind of services involved. Regardless, paid fringe benefits that are reasonable, necessary, allocable, and otherwise allowable may be included in the valuation. When a third-party organization furnishes the services of an employee, these services will be valued at that employee's regular rate of pay plus an amount of fringe benefits that is reasonable, necessary, allocable, and otherwise allowable. Indirect costs must be valued at either the third-party organization's approved federally-negotiated indirect cost rate (NICRA), or a rate in accordance with the Federal Uniform Guidance for Indirect Facilities and Administration Costs, as codified in 2 CFR 200.414(d), provided that these services employ the same skill(s) for which the employee is normally paid.⁴⁵ Where donated services are treated as indirect costs, indirect cost rates will separate the value of the donated services so that reimbursement for the donated services will not be made. Lastly, regarding third-party in-kind contributions, the fair market value of goods and services must be documented and to the extent feasible supported by the same methods used internally by the Puerto Rico Broadband Program.⁴⁶

Route Selection

The selected professional engineering firm will develop a high-level design and cost estimate for the conduit system that prioritizes the creation of resilient routes. Prior to opening the competitive bidding process, the Puerto Rico Broadband Program and its partners will collaborate with said engineering firm to ensure resiliency is the focus of the design and cost estimate. The design shared with prospective subgrantees will support the goals for broadband infrastructure in Puerto Rico described in the Five-Year Action Plan, including connectivity, resilience, quality, and speed for demanding use.⁴⁷

Route selection will be based on data collected throughout BEAD planning and community anchor institution locations throughout Puerto Rico.⁴⁸ A core route will cover areas most in need

⁴⁴ Uniform Administrative Requirements for Federal Awards, "2 CFR 200.306(e)," Code of Federal Regulations, October 11, 2023, <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.306>.

⁴⁵ Uniform Administrative Requirements for Federal Awards, "2 CFR 200.306(f)," Code of Federal Regulations, October 11, 2023, <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.306>.

⁴⁶ Uniform Administrative Requirements for Federal Awards, "2 CFR 200.306(j)," Code of Federal Regulations, October 11, 2023, <https://www.ecfr.gov/current/title-2/subtitle-A/chapter-II/part-200/subpart-D/section-200.306>.

⁴⁷ For more information on deployment goals in Puerto Rico, see the Five-Year Action Plan.

⁴⁸ For more information on categories of community anchor institutions in Puerto Rico, see the Initial Proposal Volume 1.

of paths to more resilient service, especially those regions traditionally considered too rural for development. The engineering firm will also provide additional access points that bidders may elect to include in their application.

The Puerto Rico Broadband Program, in partnership with contracted engineering services, will identify a set of targeted routes with an expected grant cost higher than the BEAD funding to be allocated to the project. Prior to opening the competitive bidding process, it will prioritize routes, emphasizing those routes on which other proposed routes most depend. The Puerto Rico Broadband Program will identify the subset of targeted routes, identified as “core” routes. The Puerto Rico Broadband Program will require other bidders to at least match the proposed set of core routes in their bids, but bidders may propose additional targeted routes for the same grant amount requested as part of a demonstration of superior value.

Model Lease Terms

To ensure the conduit system remains open access and affordable, the Puerto Rico Broadband Program will also provide model lease terms for the conduit system competitive bidding process. The Puerto Rico Broadband Program and its partners will conduct a benchmark assessment of the market and competitive landscape to establish standardized pricing models for access to the conduit. The model will include non-discriminatory policies to guarantee that all qualified service providers, regardless of size or tenure, have equal participation opportunities. Applicants may adopt the model lease terms or provide additional or alternative measures to ensure competitive and affordable rates in competitive bids. However, bidders providing alternative terms must demonstrate how these terms will not impede open and non-discriminatory access to a wide range of tenants. Bids that fail to do so may be rejected. Through this process, the Puerto Rico Broadband Program aims to prevent monopolistic practices and encourage competitive pricing among service providers utilizing the conduit system, while complying with applicable Local Procurement Standards as defined above.

Expression of Interest

To support efficient use of BEAD funding for the conduit system, the Puerto Rico Broadband Program will also open an Expression of Interest data collection phase during project development. The Expression of Interest will solicit interest from prospective tenants of the conduit system, including last-mile and middle-mile broadband service providers, utilities, and institutional users. It will also solicit interest from entities with available resilient conduit and dark fiber that they are willing to make available via swaps, trades, sales, or long-term leases, and that could complement or eliminate the need to build new facilities along identified routes. Information from these responses will be made available to all bidders.

Respondents to the Expression of Interest are not precluded from also bidding to be the subgrantee. However, bidders offering existing facilities must follow the conditions out in the section below, “Deduplication of Existing Routes.”

While only one (1) bidder will ultimately be selected to construct the conduit system, many prospective users of various types will have the opportunity to share their experiences and make requests for access points in the conduit system to support last-mile, middle-mile, and backhaul services throughout Puerto Rico. The Puerto Rico Broadband Program is committed to ensuring

that the conduit system design supports as many tenants as possible and is transformative as a system informed by coordination with prospective users.

Competitive Bidding

The Puerto Rico Broadband Program will undertake a competitive bidding process in two phases. The first phase will take place upon completion of the high-level design by the engineering vendor. The Puerto Rico Broadband Program will select the three eligible bidders with the most competitive scores from the first phase to proceed to the second phase of bidding.

The second phase of bidding will take place upon completion of the full design by the engineering vendor. If the first phase receives only two eligible bidders, the second phase may be limited to those two. If the first phase receives only one eligible bidder, the Puerto Rico Broadband Program may seek to negotiate a subgrant agreement with that bidder based on the full design and/or may open the second phase to additional bids.

The Puerto Rico Broadband Program will follow the Local Procurement Standards defined above. All prospective subgrantees will have access to the same information from the Puerto Rico Broadband Program, including:

- The high-level design at the first phase, and the full design at the second phase;
- Core and secondary routes for the conduit network design, at the second phase;
- Cost estimates, at the first and second phases;
- A model Letter of Credit; and
- Responses received by potential tenants and owners of existing facilities to the Expression of Interest.

The Puerto Rico Broadband Program will announce the application window on the program's website smartisland.pr.gov, through press release, and through coordination activities with internet service providers, government agencies, and other stakeholders. Applicants will have sixty (60) business days from the date of posting to submit their bids.

The bidders will be required to submit two (2) sets of materials, described in Figures 8 and 9 below:

- General Information to assess overall qualifications, including basic company details, eligibility materials, and compliance with fair labor, environmental, and financial standards and
- Bid Materials that describe the specific bid, including the proposed grant amount, estimated timeline, and demonstration of the bidder's plan to provide carrier-neutral open access to the conduit system.

Figure 8: Required General Information

Purpose	Requested Material	Phase
Company Information	Name of company, address, etc.	First

Contact Information	Contact information of individual authorized to liaise with the Puerto Rico Broadband Program, including name, position/title, phone number, and email	First
Eligibility Check	Company history; Certificate of good standing in Puerto Rico	First
Capacity Check	Company financial information; Capital available for deployment in Puerto Rico; Letter of Credit or alternative performance bond; Managerial and operational capacity	First
Other Publicly Funded Projects	Information on any application or planned application for relevant projects using public funds	First

Figure 9: Required Bid Materials

Category	Requested Material	Phase
Minimal BEAD Program Outlay	Estimated costs to construct per mile of conduit Value engineering recommendations	First
	Proposed conduit network design with mileage estimate; Core and additional routes proposed in commitment. Routes to be served via existing facilities Value engineering proposals Percentage of total cost covered by BEAD program Binding commitment for maximum total grant cost, net all fees, costs, and taxes	Second
Affordability	Projected conduit lease rates Pro forma financial statements with estimated cost per tenant	First
	Proposed conduit lease rates Pro forma financial statements with estimated cost per tenant	Second
Fair Labor Practices	Certification and record of past compliance with federal labor and employment laws; Past performance of contracting and subcontracting arrangements; Violation disclosures; Compliance plan for applicable wage scales, overtime, and authorization of workplace safety committees	First and Second
Open Access	Demonstration of carrier neutrality;	First
	Letters of intent from prospective users; Proposed conduit lease agreement;	Second
Experience	Summaries of past projects, including original cost and time estimates compared to completion dates and final variance costs	First and Second
Speed to Deployment	Plans to meet timeline goals	First
	Commitments to meet timeline goals	Second
Local Coordination	Demonstration of previous coordination with internet service providers, municipalities, and other stakeholders;	First and Second

	Strategic plan for community engagement, local government collaboration, and measures to mitigate environmental impact in communities	
Workforce Development and Job Quality	Commitment to participate in the Puerto Rico Broadband Program's workforce development initiative (detailed in Requirement 12)	First and Second
Technical Capabilities	Narrative of capacity for advanced engineering and construction techniques; Strategic plan for optimal deployment of fiber optic cables and integration of smart infrastructure	First and Second

The Puerto Rico Broadband Program will continue to develop the final list of requested materials in advance of opening the competitive bidding process. All applicants will be required to supply their bid details and requested materials to be considered. Failure to provide any of these materials in the required form can result in disqualification. The Puerto Rico Broadband Program, at its own discretion, may provide applicants the opportunity to amend a portion of their applications within a specified amount of time to satisfy these requirements. The sections below describe how each application will be scored and required subgrantee qualifications.

Deduplication of Existing Routes

The Puerto Rico Broadband Program seeks to avoid duplication of existing conduit and dark fiber routes where such existing routes adequately address the resiliency and hardening objectives of the program, are available to third parties at reasonable cost on open and non-discriminatory rates, and may be interconnected with the planned project. Owners of existing facilities may offer them for use to other parties through the Expression of Interest process. If the Puerto Rico Broadband Program is able to determine that such existing routes meet program objectives, it may:

1. Remove potential new routes from the project design in either phase one or phase two, or
2. Retain the route in the design but indicate that bidders may seek to propose that they use a lease agreement from the owner of the existing facility as a means of increasing the miles offered by the bid at a reduced cost.

Bidders which have previously offered existing facility routes through the Expression of Interest must, in the first phase of bidding, submit proposed rates, terms and conditions for access by third parties for not less than 20 years. This must be accompanied by a technical description of the route suitable for use by prospective leasees. If the Puerto Rico Broadband Program removes these routes from the core routes in the final design, the bidder must offer access to these routes to any winning bidder. If the routes are not so removed, the bidder may offer these routes as part of its own bid but is not bound to offer them to other bidders.

Deduplication Example 1: A Carrier Changes Route Design and Bids for Developer

Carrier A presents existing conduit to the Puerto Rico Broadband Program during the Expression of Interest. This conduit is along a route that the Puerto Rico Broadband Program identifies as a needed "core" route in the high-level design process. Carrier A decides to provide a competitive bid for the

conduit developer and provides as part of its bid the required information that would allow other parties to lease the conduit. The Puerto Rico Broadband Program determines that Carrier A's existing facilities adequately address resiliency, hardening, and open access requirements, and the Puerto Rico Broadband Program removes a segment of the route design in response. During the review process, the Puerto Rico Broadband Program selects a different bidder as the winner. During the grant agreement phase, Carrier A is required to provide the winning bidder access to the route, utilizing the lease terms offered by the winning bidder.

Deduplication Example 2: Existing Facilities Lease Agreement as Competitive Miles

Carrier B presents an existing conduit segment to the Puerto Rico Broadband Program during the Expression of Interest but does not bid for the subgrant. Carrier B's existing facilities adequately address resiliency, hardening, and open access requirements. The Puerto Rico Broadband Program elects to maintain the route in the design but allow bidders to use the existing facility to meet the route requirement. In preparation of its competitive bid for the conduit developer, Bidder A proposes a lease agreement to Carrier B, which Carrier B accepts, that would allow Bidder A to utilize the existing facilities in its bid. Bidder A wins the subgrant. Carrier B enters the lease agreement which requires it to provide access to its existing conduit segment.

Deduplication Example 3: Existing Facilities Do Not Meet Requirements

Carrier C presents existing conduit to the Puerto Rico Broadband Program during the Expression of Interest. While the existing conduit geographically aligns with the proposed route design, the conduit does not have the capacity required for multiple tenants, a key requirement of the conduit system. The Puerto Rico Broadband Program elects to maintain the existing route and determines a new conduit route in that area, built to the technical specifications of this project, is warranted to ensure the system is able to accommodate the number and type of expected users.

Value Engineering

At the first phase of bidding, bidders may make value engineering recommendations for the complete design phase. The Puerto Rico Broadband Program may accept or reject recommendations from bidders based on how well they serve the needs of the project. In the second phase, bidders may include value engineering proposals that provide the functional equivalent of the full design as specified. The Puerto Rico Broadband Program may also solicit value engineering proposal from a selected winning bidder as part of contract negotiations.

Value engineering recommendations and proposals must include an explanation of how they do any or all of the following:

1. Improve access by or usefulness to tenants to the proposed facility,
2. Improve the scalability or resiliency of the proposed facility, or
3. Reduce cost of the project, without adversely affecting #1 or #2.

Value engineering proposal shall not propose substitution of routes. This is not intended to limit the ability of bidders to propose existing routes offered as part of deduplication of existing routes.

Bidders are not obligated to provide value engineering recommendations or proposals.

Review Team

A review team of Puerto Rico Broadband Program staff, a contracted engineering firm, and a grants management contractor with appropriate professional qualifications will evaluate each prospective subgrantee's bid. The Puerto Rico Broadband Program and its partners will develop key forms and worksheets that structure responses from applicants for more efficient and consistent reviews. These standards will ensure that prospective subgrantees adhere to BEAD requirements and applicable regulations.

The conduit system subgrantee application review and scoring process will be meticulously organized into three (3) specialized subject-matter groups: technical, financial, and programmatic, all overseen by a principal consultant for a holistic view. These expert groups will be guided by experienced team leads with a proven track record of conducting similar reviews for federal grant programs and within Puerto Rico, as available. To ensure the efficiency and punctuality of the process, a project manager and senior consultant will oversee the entire operation.

To safeguard against collusion and conflicts of interest, the Puerto Rico Broadband Program and its partners will confirm all members of the review team are free of conflicts of interest and will not enter business or actions that result in conflicts of interest. The Puerto Rico Broadband Program will disqualify an application if applicants or any of their representatives attempt to inappropriately influence the grant process or collude in any way.

Expertise and Past Experience

Although the Puerto Rico Broadband Program is an entity of relatively recent creation, its Executive Committee has several members with substantial experience drafting program rules and structuring the information required to evaluate a project, such as the PRTB, OMB, Hacienda, the CW-IT and the CW-CIO. Moreover, its Advisory Council has seasoned members towards those purposes (i.e., PRASA, HTA, DSP, AAFAF and OGPe). While developing the project application materials, the Puerto Rico Broadband Program will consider past project barriers in Puerto Rico, including diverse topography, slow permitting processes, labor shortages, and disruptions and cost variations for imported materials.⁴⁹

As described above, the Puerto Rico Broadband Program will contract an engineering firm to first design the conduit route and subsequently support technical review of applications. The team of **technical reviewers** will be drawn from the engineering firm selected by the Puerto Rico Broadband Program. The review team of engineers, having designed the core and secondary conduit routes in the application materials, will provide detailed reviews of proposed builds from applicants and ensure the responses align with industry standards, program priorities, and any existing broadband infrastructure.

The **financial reviewers** will conduct high-level reviews of project cost reasonableness, budget, financial sustainability, and the adequacy of proposed capital sources. During these reviews, financial reviewers will identify risks and vulnerabilities for the proposed models.

⁴⁹ For more information on obstacles for deployment in Puerto Rico, see the Five-Year Action Plan.

The **programmatic reviewers** will evaluate additional criteria of submitted bids, including labor practices, open access plans, experience, local coordination, and workforce development commitments.

To ensure the financial and programmatic reviewers have extensive background in reviewing project financials and designs, the Puerto Rico Broadband Program will contract a consulting partner that has experience with federal and state broadband infrastructure grants, development of public-private partnerships, and project selection advising for broadband offices. This consulting contractor will also operate as the BEAD grant manager, ensuring subgrantee selection, review, and monitoring are integrated with this proposal, BEAD goals, and commitments of the Puerto Rico Broadband Program. See Requirement 10 for additional information on this consulting contractor.

Review Staffing

The Puerto Rico Broadband Program anticipates a small number of applications for the conduit system with robust detail. As such, the review process will require a small team of reviewers to critically review large proposals to ultimately select a single subgrantee for development and management of the conduit system. The Puerto Rico Broadband Program estimates the following number of human resources to execute conduit system bid reviews, distributed across the technical, financial, and programmatic domains. Figure 10 details staffing levels assuming the receipt of four bids. Staffing may need to be adjusted up or down based on the volume of bids received.

Figure 10: Review Staffing

Review Team	Size	Staffing	Source
Technical	8	Four (4) primary reviewers; Two (2) technicians	Engineering Contractor
		One (1) geographic information system (GIS) reviewer; One (1) supervising reviewer	Consulting Contractor
Financial	3	Two (2) primary reviewers; One (1) supervising reviewer	Consulting Contractor
Programmatic	3	Two (2) primary reviewers; One (1) supervising reviewer	Consulting Contractor

This review process assumes teams of two (2) primary reviewers, each responsible for review of all bids, with a supervising reviewer in each area to ensure consistency of work. For technical review of four (4) bids, two (2) teams of primary reviewers will each evaluate two (2). Assistant reviewers will support the primary reviewers with analysis tasks but not perform scoring.

The Puerto Rico Broadband Program estimates reviewers to spend the following amount of time reviewing each conduit system application, on average. The following hours are per application across all reviewers, regardless of level:

- **Technical:** One hundred sixty (160) hours of technical review + forty (40) hours of GIS review,
- **Financial:** Ninety (90) hours, and
- **Programmatic:** Ninety (90) hours.

The Project Manager and Senior Consultant will also be available throughout an estimated six-week review process to direct and be responsible for requests for additional information and clarifications, and requests to cure minor defects in the bids directed to the bidders during the review process, with the input of the reviewers. They will prepare an overall scoring review and award recommendation report.

Evaluation Standards

To ensure uniformity and fairness, all reviewers will reference the same set of materials while conducting their evaluations. Evaluation materials will include the program procedures, the BEAD NOFO, and a scoring guide with prompts to evaluate each application.

Reviewers will use a scoring guide to score sections relevant to their industry experience for quality insight. Prior to processing submitted applications, the Puerto Rico Broadband Program and its partners will develop several resources to facilitate this application review:

- An application completeness and scoring guide as an initial screening tool and application summary;
- A set of technical, financial, and programmatic review standards to guide consistent reviews;
- An application review workflow and expected timeline, incorporating steps and decision points for stakeholders and decision-makers; and
- A communications protocol and documentation process for questions and supplemental information requests for applicants post-submission.

For consistency of evaluation standards, two (2) primary reviewers will be assigned to each application and an average score used. Reviewers will assign a score for each criterion using the standardized scoring guide. This guide will include sections for reviewers to record their assessments and identify potential areas for remediation. The content of the scoring guide will match the eligibility criteria and scoring rubric outlined in this proposal, aligned with NOFO requirements. Recognizing the overlap in expertise required to assign scores, financial, technical, and programmatic reviewers assigned to a specific application will collaborate closely to detect any inconsistencies.

Supervising reviewers will oversee all reviews with the authority to adjust as needed for consistency, and a Senior Consultant will provide feedback across the functional domains. The Puerto Rico Broadband Program and its partners will utilize evaluation tools from other federal program evaluations as available, including financial tools designed to standardize scores for categories such as project cost-efficiency and matching funds contributions. Thorough preparation in advance of the review process will ensure the Puerto Rico Broadband Program and

its partners make a timely funding decision for the most competitive conduit system bid with confidence.

Reviewer Training and Collaboration

All members of the review team will be required to attend an orientation session led by the Puerto Rico Broadband Program and its consulting partner. The orientation will ensure a shared understanding of review standards, as well as provide the reviewers with the essential internal tools, including project management software, score standardization tools, and scoring guides. Reviewers will be instructed to maintain comprehensive, factual notes in the internal review scoring guide for objective evaluations.

Subject matter leads for each of the three (3) review teams (i.e., Technical, Financial and Programmatic) will also hold meetings with their respective teams to ensure consistency in reviews and adherence to applicable standards. Subject matter leads will communicate application priorities and reiterate scoring standards.

The Puerto Rico Broadband Program and its partners, including the Project Manager, Senior Consultant, and subject matter leads, will convene to organize the materials submitted by applicants. A completeness check and initial screening will be conducted to identify applications missing essential materials and initiate remediation before the review process begins. If applicants fail to submit all required materials, the Puerto Rico Broadband Program will communicate this deficiency.

The Puerto Rico Broadband Program and its partners will evaluate the number of applications received and prioritize applications for review order. This will facilitate efficient reviews and allow for earlier remediation, if needed.

In the event of a tie between two (2) applications, the Puerto Rico Broadband Program and its technical, financial, and programmatic review teams will assess awarded scores to determine whether any adjustments are appropriate. Any adjustments made will be approved by the respective review team and senior consultant. If no adjustments are warranted, the Puerto Rico Broadband Program will utilize the minimal BEAD program outlay score as the tiebreaker. In the event of a tie on minimal BEAD program outlay, scores for the following criteria as ranked in enclosed Appendix A will determine the winning bid.

The final recommendation will be based on the findings of comprehensive reviews. Reviewers from each expert area will present their findings to the subject matter leads and project manager, enabling the identification of potential inconsistencies before making a recommendation. The Puerto Rico Broadband Program and its partners will hold bi-weekly meetings to discuss reviews, remediation efforts, and funding recommendations. The project manager and lead reviewer will communicate the final recommendation through an award recommendation report and summary memos containing detailed information of the applicants and their applications.

Review Process

Technical reviewers will evaluate the high-level design and budgeted cost assumptions included in the applications. These reviewers will determine whether the proposed project is feasible and reasonable based on industry standards. Technical reviewers will also calculate the cost-efficiency and readiness of the applicant to execute the project in a reasonable timeline and budget.

An additional GIS reviewer will calculate the mileage of a given application and collaborate with technical and financial reviewers to ensure that it aligns with the mileage as detailed in the budget. The GIS reviewer will also evaluate the proposed conduit route, ensuring the core route has been addressed and any additional paths support Puerto Rico's goals. The GIS resource will be available for any additional spatial analysis as required for review.

Financial reviewers will stress test the pro-forma included in the application. Although company financials will be unique, these stress tests will be standardized to determine the resiliency of a prospective subgrantee's financial performance. Key elements of these tests will be to fluctuate take rates and average revenue per user (ARPU) to determine a prospective subgrantee's ability to take on projects in different adverse scenarios. The financial reviews will also ensure that any matching commitments made, and the proposed matching fund sources are secure. Financial and technical reviewers will collaborate to ensure that the budget is detailed enough to ensure that only eligible expenses are included.

Programmatic reviewers will utilize the scoring guide to evaluate past experiences, strategic plans, and commitments presented by applicants for fair labor practices, open access, local coordination plans, and workforce development. Programmatic reviews will also ensure all applicants have complied with the minimum standards set forth in the scoring criteria and will comply with these commitments in the grant agreement if selected.

Estimated Review Timeline

The Puerto Rico Broadband Program estimates the conduit system subgrantee selection review process will be conducted over approximately four (4) months, from materials development through grant agreement preparation. Figure 11 below outlines the key review process phases and estimated timespan.

Figure 11: Conduit Application Review Timeline

Review Phase	Time	Description
Program Preparation	60 days	Reviewer orientation, pre-review meetings, application and scoring materials preparation
Complete Application Reviews	45 days	Review set-up, completeness checks, review prioritization process, reviews, recommendations, and remediation outreach, as applicable
Award and Grant Agreement Preparation	30 days	Grant agreement review and red-lining, execution by grantor and grantee, disbursement process review, compliance checks and process review

Scoring Criteria

Prior to accepting applications, the Puerto Rico Broadband Program will make all scoring criteria publicly available. Basic application information, including company name and history, contact information, and inclusion of all materials, will be assessed on a pass/fail basis. Applicants may demonstrate additional value by proposing to include additional routes in the engineered design that they would be able to build within the program budget. For project information, the Puerto Rico Broadband Program will use a maximum score of four hundred (400) points to evaluate applications. Figure 12 summarizes the conduit system subgrantee scoring criteria. All bids will be evaluated by the degree to which the application fulfills or exceeds expectations set by the scoring rubric detailed in Appendix A.

Figure 12: Conduit System Subgrantee Scoring Criteria Summary

Criteria	Max points
Minimal BEAD Program Outlay	60
Affordability	60
Experience	50
Open Access	50
Speed to Deployment	40
Local Coordination	40
Fair Labor Practices	40
Workforce Development and Job Quality	30
Technical Capabilities	30
Total	400

Applicants will receive scores at both the first and second phases of bidding using these same scoring criteria. However, due to the more preliminary information about the project that will be available to bidders at the first phase, the basis of points awarded in the following criteria will differ between the first and second phases:

- Minimal BEAD Program Outlay
- Affordability
- Open Access
- Speed to Deployment

See enclosed Appendix A for a detailed Conduit System Subgrantee Selection rubric.

Route Selection, Use of Existing Facilities, Value Engineering

To ensure that any awarded project meets the core program objective for resilience, the Puerto Rico Broadband Program will require applicants to address a set of highest-priority, core routes selected by the program with the assistance of the engineering contractors.

Affordable Device Program

The Puerto Rico Broadband Program seeks to establish an Affordable Device Program to help increase the number of residents with access to computers using \$50 million of BEAD funding. As described in the Digital Equity Plan, fifty five percent (55%) of Puerto Rican households do not have a desktop computer or a laptop and twenty four (24%) do not own a computing device of any type.⁵⁰

The Affordable Device Program's goal is to give all Puerto Ricans access to a device, with an emphasis on targeting the needs of the most vulnerable populations.

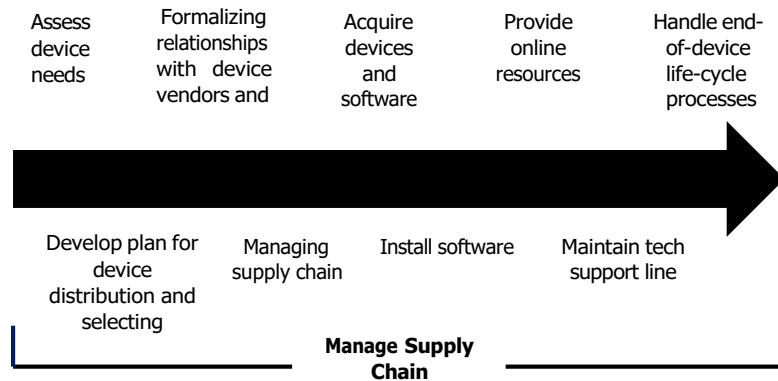
The Puerto Rico Broadband Program will issue a NOFA to select a subgrantee to design and implement the Affordable Device Program. The role of this subgrantee will include, but is not limited to, the following:

- Assessing device needs throughout Puerto Rico;
- Developing a comprehensive plan for device distribution that includes a process for selecting eligible program participants;
- Formalizing relationships with device vendors and distributors;
- Managing the supply chain from purchase to delivery at Multiservice and Internet Centers (MICs);
- Acquiring devices and necessary software;
- Installing software before device distribution;
- Providing easily accessible, online resources;
- Maintaining a tech-support help line with reasonable hours to assist device users with any questions or technical difficulties; and
- Handling end-of-device life-cycle processes, such as recycling, refurbishment, reuse, and donations.

⁵⁰ Puerto Rico Broadband Program, "Digital Equity Plan."
https://docs.pr.gov/files/Broadband/Digital%20Equity%20Plan/PRBP_Digital%20Equity%20INITIAL%20DRAFT.pdf

Figure 13 provides a sample timeline of subgrantee activities.

Figure 13: Sample Timeline of Device Program Subgrantee Activities



The Affordable Device Program will include two (2) initiatives: one for providing subsidized devices, the other for the recycling and redistribution of technology.

The subsidy initiative will enhance device accessibility for communities across the island, particularly at MICs.⁵¹ The subsidy program will complement opportunities for financial assistance and subsidies beyond the federal ACP in partnership with internet service providers and device manufacturers. The Puerto Rico Broadband Program and the selected subgrantee will collaborate with community organizations throughout device negotiations to provide internet-enabled devices, including computers, laptops, and tablets, to underserved and economically disadvantaged communities throughout Puerto Rico.

The recycling and redistribution initiative is driven by the Puerto Rico Broadband Program's commitment to sustainability, social responsibility, digital inclusion, and equitable access to technology. The Puerto Rico Broadband Program's selected subgrantee will also facilitate the collection, refurbishment, recycling, and redistribution of devices.

Before distributing devices, the Puerto Rico Broadband Program and the selected subgrantee will develop a process to identify eligible households in partnership with relevant collaborators. Potential collaborators include, but are not limited to, government agencies, internet service providers, and relevant organizations. Stakeholder engagement will provide insight into the needs and challenges of each community, ensuring the program effectively supports individuals access to devices, trainings, and any additional support they may need.

⁵¹ For more information on the Puerto Rico Broadband Program's plans for Multiservice and Internet Centers throughout Puerto Rico, see the Digital Equity Plan.

While the goal of this program is to supply each eligible household with one device, there may be situations in which once this goal is met, households could qualify for additional devices. Factors the Puerto Rico Broadband Program may consider include, but are not limited to, the following:

- Number of students per household;
- Number of devices already in the household;
- Household eligibility and/or enrollment in the ACP;
- Participation in the Nutrition Assistance Program (NAP);
- Households with eligibility for Head Start and Early Head Start; and/or
- Households receiving unemployment insurance at any point in the past two (2) years.

Once data-driven determinations are made regarding device eligibility, the subgrantee will coordinate with necessary parties, including, but not limited to, the following:

- Vendors;
- Distributors;
- MIC staff;
- Digital Navigators; and/or
- Eligible Households.

The subgrantee will manage the entirety of the supply chain, ensuring that the device travels from the vendor to the hands of each eligible individual in a safe, timely, and cost-effective manner. Before distributing devices to eligible individuals, the subgrantee will run adequate quality tests and install necessary software for device use and to prevent theft, unauthorized reselling, and cybersecurity threats. The Puerto Rico Broadband Program will collaborate with the subgrantee to determine which specific tests and software are best to accomplish these goals.

The subgrantee will then contact each household and provide guidance on how to schedule an appointment at a local MIC to pick up their device and receive an initial Digital Navigator and Literacy training session. For individuals unable to travel to a MIC, the subgrantee will make alternate arrangements on a case-by-case basis for device pickup and necessary training. More information regarding these training sessions is available below, in the Digital Navigators and Literacy Program description.

The device program subgrantee will also operate a device helpline to assist device users with technical support, direct them toward resources, provide connections to additional digital literacy training, and direct device refurbishment, recycling, or replacement. The subgrantee will manage connection to third parties, such as device manufacturers, as needed to ensure all device users are equipped with quality products.

A rubric for device distribution partner selection is included in the figure below.

Figure 14: Affordable Device Program Rubric

Maximum points	Category	Description
40	Fulfillment Capacity	Priority given to organizations with a demonstrated capacity to process and fulfill digital device orders

		from local organizations, with priority given to organizations with experience working in Puerto Rico.
30	Efficacy and Efficiency	Demonstrates a cost-effective and expeditious plan to distribute devices within the region based on cost per device.
20	Coordination	Demonstrates a track record of prior coordination with small and medium sized nonprofit entities with federal or state compliance requirements in the region.
10	Community Engagement	Demonstrates strategy to evolve device procurement based on identified community needs and feedback, with priority given to organizations that already have relationships with organizations in Puerto Rico.

Digital Navigator and Literacy Program

To advance goals outlined in the Puerto Rico Digital Equity Plan and effectiveness of the Affordable Device Program, the Puerto Rico Broadband Program will develop a Digital Navigator and Literacy Program using \$30 million of BEAD funding. Digital Navigators will be based out of MICs throughout Puerto Rico.

The Puerto Rico Broadband Program will issue a NOFA to select subgrantees to design and implement the Digital Navigator and Literacy Program. Selected subgrantees will be assigned regions of Puerto Rico to implement their navigator programs, ensuring every region is adequately supported. The Puerto Rico Broadband Program will conduct a fair and open competitive procurement process to select organizations that will:

- Assess and determine digital navigator and digital literacy needs throughout Puerto Rico;
- Based on findings, design a program informed by national best practices;
- Identify staffing needs for each MIC;
- Develop budgets for each MIC and plan for program scaling;
- Hire and train local digital navigators;
- Engage with national digital navigator programs (e.g. through the National Digital Inclusion Alliance)⁵²; and
- Design a program sustainability plan.

A rubric for selecting Digital Navigator and Literacy Program subgrantees is included in Figure 15 below.

Figure 15: Digital Literacy and Digital Navigator Subgrantee Selection Rubric

Maximum points	Category	Description
50	Prior Digital Literacy or Digital Navigator Program Experience	Priority given to cost-efficient organizations with experience managing digital navigator, digital literacy, or other digital education

⁵² National Digital Inclusion Alliance, "The Digital Navigator Model."
<https://www.digitalinclusion.org/digital-navigator-model/>

		programs that have a track record of demonstrated success.
20	Planned Staffing Capacity	Has demonstrated capacity or has demonstrated ability to scale to meet capacity requirements, for digital literacy or digital navigation services in planned service area.
20	Populations Covered	Priority given to organizations with a demonstrated ability to serve all populations, including those that are unable to travel to a specific destination.
10	Community Coordination	5 points: Has demonstrated community engagement and outreach plan that involves commitments from community stakeholders. 5 points: Demonstrates meaningful coordination with additional social service providers.

Coordination between the Affordable Device & the Digital Navigator and Literacy Programs

Puerto Rico's MICs will serve as the hub for both the Affordable Device and Digital Navigator programs, encouraging alignment and coordination between programs. Digital navigators will interface with the Affordable Device Program in the following ways:

- Collaborate with the Affordable Device Program subgrantee and the Puerto Rico Broadband Program to share information about residents' device and digital equity needs;
- Assist residents with scheduling device pick-up;
- Coordinate digital literacy training sessions for when device program participants receive their devices; and
- Support the device program subgrantee with device pickup tracking;
- Coordinate efforts to support residents interested in program participation who can't access a MIC.

Workforce Development Grant Program

The Government of Puerto Rico aims to bring essential broadband infrastructure to all residents over five years through the deployment of broadband infrastructure projects. To effectively execute its mission, it must ensure that Puerto Rico has the necessary broadband workforce, with the appropriate knowledge and skills, to build and maintain these projects. It is estimated that an additional twenty-five hundred (2,500) workers, including broadband technicians, construction workers, broadband-related engineers, and customer representatives, and others, are needed by 2028 to meet workforce needs.

The Government of Puerto Rico recognizes the importance of building a long-term talent pipeline to meet the demands of the broadband industry, bolster economic development and provide career opportunities for Puerto Ricans. As such, the Puerto Rico Broadband Program will invest both local funds and BEAD funds to develop a workforce development initiative. Puerto Rico Broadband Infrastructure Funds (PRBIF) will be used over the next eighteen (18) months to pilot a series of programs that are urgently needed to meet ISP workforce gaps. BEAD funding may be used to supplement and complement PRBIF efforts.

The Government of Puerto Rico's cross-functional approach includes rapidly convening internet service providers (ISPs) and other industry leaders; engaging with academic institutions, training providers, unions, and other key stakeholders to develop plans to recruit and train talent; standing up a set of accessible career pathways to solve urgent workforce needs; and mobilizing community-based organizations and job centers to market opportunities and recruit diverse talent. For a description of existing efforts and PRBIF workforce development initiatives, please see Requirement 12.

The Puerto Rico Broadband Program is investing \$15 million in BEAD funding to develop a competitive workforce development grant program.

The goal of the BEAD workforce development program is to support the broadband industry's talent needs by investing in education and training programs that expand career opportunities in Puerto Rico.

Eligible Entities

Entities eligible to apply for workforce subgrants include:

- Higher education institutions in Puerto Rico (public and private universities / colleges) and training providers
- Career and Technical Education institutions
- Public-private partnerships;
- Workforce development organizations;
- Industry associations
- Employers
- Wraparound service providers & community-based organizations

Eligible Use of Funds

The Puerto Rico Broadband Program prioritizes efficient and effective use of funds to advance broadband workforce development and align with existing efforts, as described in the PRBIF workforce initiatives in Requirement 12. BEAD funding may be used to enhance or expand existing efforts or may be used to develop new programs. Eligible use of BEAD funds include:

- Develop or enhance curriculum to support short-form broadband technician training.
- Hire or train faculty/instructors in applicable broadband topics
- Engage external training providers for faculty training and curriculum development
- Engage internet service providers and employers
- Invest in equipment/facilities
- Evaluate and track programs.

The types of programs the Puerto Rico Broadband Program prioritizes align with existing efforts and/or develop new programs that meet the needs of the broadband industry. These priority programs include:

- **Scaling non-degree programs to more high schools (CTEs):** PRBIF funding will be used for curriculum design and piloting in five (5) to ten (10) schools. The BEAD workforce

development program may be used to develop additional CTE programs to develop Puerto Rico's talent pipeline and meet the needs for trained workers across the island.

- **Expanding broadband offering at universities / colleges beyond the initial programs:** PRBIF funding is being used to build and expand post-secondary broadband-related programs. BEAD funding may be used to expand or develop and launch specialized university courses that result in short-term credentials, and four-year and advanced degrees focused on the broadband industry: project manager, civil engineer, design engineer, OSP engineer, RF engineer, network architect/planner, procurement lead, safety lead, quality inspector, 5G Microcell technician, permitting specialist, grant manager, and compliance officer, for example.
- **Launching college-to-career programs:** BEAD funding may be used to expand or launch experiential and hands-on learning programs (e.g., Registered Apprenticeships, fellowship, co-op, work-study) for broadband engineering and business roles across master's and bachelor's degrees.
- **Developing and launching upskilling and career progression programs** to provide employees with training for transition to other roles after initial build (e.g., 21st Century Skills). Such programs would support career pathways and opportunities for advancement.
- **Providing wraparound services to participants in broadband education or training programs** to increase the diversity of participants, regardless of their personal circumstances. The Puerto Rico Broadband Program prioritizes services in following categories with the intention to increase recruitment, retention, and diversity in the broadband industry:
 - Basic needs (childcare, transportation, clothing and tools, housing, digital inclusion)
 - Wellbeing (mental health support, emergency funds, health, case management)
 - Education and training (books, training, language support)
 - Coaching (job coaching, financial literacy)

Figure 16: Workforce Development Grant Program Subgrantee Selection Rubric

Maximum points	Category	Description
40	Program Design	Relevance of new program / program enhancements to employers and/or students, applicant's track record of instituting innovative program design. Accessibility of proposed programs to various student groups and inclusion of wrap-around services
30	Joint Development	Joint development with stakeholders, including but not limited to industry leaders, other educational institutions, third-party training providers
20	Cost-Efficiency and Efficacy	Program is cost effective and can be completed in a reasonable time. Evaluates leadership commitment/engagement, the ability to sustain program over time, and the ability to continue scaling.

10	Cost to Participant	Program is free or low-cost for students. Programs with paid work experience prioritized.
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Workforce grant applicants will be required to satisfy all NTIA BEAD program subgrantee requirements listed in Requirement 9.4, Requirement 11 and in Box 8.8.2 of Requirement 12 in the Workforce Readiness section. For more information about Puerto Rico's workforce development plans and future programs, please see Requirement 12.

Device, Digital Navigator, and Workforce Development Programs Selection Process

To select subgrantees to develop and administer the Affordable Device, Digital Navigator and Literacy, and Workforce Development programs, the Puerto Rico Broadband Program will conduct a transparent application review and evaluation process. The Puerto Rico Broadband Program will seek entities based in Puerto Rico with experience operating similar programs. The Puerto Rico Broadband Program will develop objective methods and scoring criteria and publish them in advance of accepting applications.

To safeguard against collusion, bias, conflicts of interest, and arbitrary decisions, the Puerto Rico Broadband Program and its partners will confirm all application reviewers are free of conflicts of interest and refrain from entering business arrangements or actions that result in such conflicts. For example, the Puerto Rico Broadband Program will institute a separation-of-roles between application reviews and the program employees reviewing the recommendation and making funding decisions, will prohibit employees or contracted reviewers who have a financial relationship to applicants from participating, and prohibit employees and reviewers to assist potential applicants with the preparation of applications, apart from assistance generally offered to all potential applicants. Any applicant that attempts to inappropriately influence the grant process or collude in any way will be immediately disqualified.

To encourage participation by a wide variety of potential applicants, the Puerto Rico Broadband Program will provide at least thirty (30) days public notice of the competitive application period for these programs. The Puerto Rico Broadband Program will announce the application period on its website and collaborate with community organizations and other stakeholders to disseminate information to potential applicants.

All applications will undergo a competitive review process to verify merit and alignment with program goals and federal requirements. Application scores will be based on an objective, common standard that does not favor one applicant over another. If the Puerto Rico Broadband Program develops preferences for specific types of entities during development of these programs, those preferences will be considered as secondary criteria in the program materials.

The Puerto Rico Broadband Program will extend existing Government networks of support to include the Affordable Device Program, Digital Navigator and Literacy Program, and Workforce Development Program. The program structures will prioritize ongoing trust and relationships with partners and community anchor institutions, including regional organizations, libraries, and senior centers, to maximize impact.

Non-Deployment Subgrantee Initiatives

2.5.2 Text Box: Describe the Eligible Entity's plan for the following:

- a. How the Eligible Entity will employ preferences in selecting the type of non-deployment initiatives it intends to support using BEAD Program funds;**
- b. How the non-deployment initiatives will address the needs of residents within the jurisdiction;**
- c. The ways in which engagement with localities and stakeholders will inform the selection of eligible non-deployment activities;**
- d. How the Eligible Entity will determine whether other uses of the funds might be more effective in achieving the BEAD Program's equity, access, and deployment goals.**

As noted in Requirement 8, all BEAD subgrantee activities in Puerto Rico are considered "non-deployment." The Puerto Rico Broadband Program has identified these four (4) non-deployment activities—conduit system, affordable devices, digital navigators, and workforce development program—as priority uses of BEAD funding that will facilitate unprecedented connections and technology opportunities. Each of these activities will address direct needs of residents identified during development of the Five-Year Action and Digital Equity Plans.

The Puerto Rico Broadband Program has determined the conduit system is a priority infrastructure project. Weather events and outages have demonstrated Puerto Rico's need for reliable broadband infrastructure that can withstand unexpected events and continue to provide residents service long after initial installation. The proposed conduit system, with the required open access elements described above, will serve as a long-term solution for long-term problems in Puerto Rico.

Following allocation of BEAD funds to the conduit system, the Puerto Rico Broadband Program will then fund the device, navigator, and workforce programs. Through data collection efforts on resident internet access and interviews with stakeholders, the Puerto Rico Broadband Program determined major obstacles for residents accessing the internet include the high cost of devices and lack of digital skills. Allocation of BEAD funding to an affordable device program and digital navigator training for residents will support every Puerto Rican, regardless of their location, having access to online tools and opportunities. BEAD funding for workforce development will create the career access pathways required for urgent broadband workforce needs.

These BEAD non-deployment subgrantee programs will contribute valuable resources and empower Puerto Ricans to utilize newfound skills to benefit their own communities. The Puerto Rico Broadband Program will ensure that additional digital equity programs and infrastructure projects from other funding sources, informed by continued engagement with localities and stakeholders, complement these objectives and make efficient use of available funds for a comprehensive approach.

The Puerto Rico Broadband Program will continue to engage stakeholders including nonprofit and community-based organizations, public libraries, government agencies, Municipalities, and internet service providers. Throughout program development, the Puerto Rico Broadband Program will seek feedback from these stakeholders to ensure the proposed funding uses and ultimate determinations reflect the public interest and build upon the strengths of existing operations in Puerto Rico. During implementation, the Puerto Rico Broadband Program will

encourage all subgrantees to conduct local coordination and leverage existing services throughout Puerto Rico to make efficient use of BEAD funds.

Non-Deployment Funding Allocations

2.5.3 Text Box: Describe the Eligible Entity's plan to ensure coverage to all unserved and underserved locations prior to allocating funding to non-deployment activities.

As noted in Requirement 8, all currently designated "unserved" or "underserved" locations in Puerto Rico have existing commitments from service providers Claro and Liberty to provide universal service by 2028. As a result, Puerto Rico is in a unique position to generate an implementation strategy that supplements current plans and addresses digital equity needs. The following table outlines the Puerto Rico Broadband Program's current cost estimates for each non-deployment activity, totaling \$320 million.

Figure 17: Non-Deployment Funding Allocations

Activity	Funding Allocation
Conduit System	\$215M
Affordable Device Program	\$50M
Digital Navigator and Literacy Program	\$30M
Workforce Development Grant Program	\$15M

Non-Deployment Subgrantee Qualifications

2.5.4 Text Box: Describe how the Eligible Entity will ensure prospective subgrantees meet the general qualifications outlined on pages 71 – 72 of the NOFO.

The Puerto Rico Broadband Program will ensure that non-deployment subgrantees meet compliance requirements, have managerial and financial capacity, and have the technical and operational capacity to deliver the proposed programs. The following subsections describe how the Puerto Rico Broadband Program will evaluate non-deployment subgrantee qualifications for each activity.

Compliance:

The Puerto Rico Broadband Program will ensure that any prospective non-deployment subgrantee can carry out activities funded by the subgrant competently in compliance with all applicable federal, state, and local laws.

Applicants for the conduit system will be required to certify compliance with all applicable federal and local laws relevant to carrying out the grant agreement. Conduit system applicants must provide a narrative describing the plan to comply with any relevant laws or regulations. The Puerto Rico Broadband Program will require attestation that a prospective subgrantee will permit workers to create worker-led health and safety committees that can meet with management upon reasonable request. For more on labor standards and protection, see Requirement 11.

Among the information that the Puerto Rico Broadband Program shall require of prospective conduit subgrantees in the application process will be:

- The prospective subgrantee's record of past compliance with federal labor and employment laws, specifically regarding broadband development projects in the last three (3) years;
- Certifications from an Officer/Director-level employee (or equivalent) of the prospective subgrantee evidencing consistent past compliance with federal labor and employment laws by the subgrantee, as well as all contractors and subcontractors;
- Written disclosures by the prospective subgrantee regarding any instances where the subgrantee or contractors have been found to violate laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws for the preceding three (3) years; and
- Information on how the prospective subgrantee will ensure compliance in its own labor and employment practices as well as its contractors and subcontractors, including:
 - Applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved in the physical construction of the broadband network and
 - How the subgrantee will ensure the implementation of workplace safety committees in connection with delivery of broadband deployment projects.

As detailed in Requirement 11 below, each of the above responses by the prospective conduit subgrantee will be factored into the Puerto Rico Broadband Program's review and scoring of each application to the program.

Prospective subgrantees for the affordable device, navigator, and workforce programs must certify that they comply with all occupational and legal requirements for their respective organization. To determine if a prospective subgrantee for these programs meets the necessary standards, the Puerto Rico Broadband Program will:

- For each program, identify a baseline required experience level and
- Evaluate application materials to determine if all applicable laws have been complied with.

Evidence that the Puerto Rico Broadband Program may accept in making its determination includes but is not limited to:

- Information regarding past performance in a similar program,
- Past compliance, and/or
- Program plans and related analyses.

Financial and Managerial Capability

The Puerto Rico Broadband Program will analyze all prospective non-deployment subgrantees to identify whether they have the financial and managerial capacity and have met the commitments of the subgrant and requirements of the program prescribed by the OMB.

As part of the application materials, all prospective subgrantees for the conduit system will be required to demonstrate the amount of capital they have available to spend in Puerto Rico for the

proposed project. Prospective conduit subgrantees will be required to certify that the amount of this estimate, representing their best effort for accuracy, will remain available throughout the duration of the grant process. Subgrantees will also be required to certify that they have no existing financial obligations that would preclude them from maintaining these funds.

Each prospective conduit subgrantee will be required to certify that it has and will continue to have sufficient financial resources to cover eligible costs for the project until such time as the Puerto Rico Broadband Program authorizes additional disbursements. The Puerto Rico Broadband Program will review submitted financial estimates to determine each prospective subgrantee's financial capacity.

The Puerto Rico Broadband Program will require each prospective subgrantee for the conduit system to submit financial statements from the prior fiscal year, audited by an independent certified public accountant. If a prospective conduit subgrantee has not been audited during the ordinary course of business, in lieu of submitting audited financial statements, the prospective subgrantee must submit unaudited financial statements from the prior fiscal year, to be reviewed by the Puerto Rico Broadband Program, and commit to providing audited financial statements by an independent certified public account prior to executing the grant agreement. The Puerto Rico Broadband Program will not approve a grant until submitted documents demonstrate the prospective subgrantee's financial capability.

During the competitive bidding process, the Puerto Rico Broadband Program will require conduit applicants to submit financial analyses that substantiate the sustainability of the proposed conduit project. The Puerto Rico Broadband Program will require applicants to submit:

- key cost factors and proposed project cost;
- business plan for prospective tenant outreach and agreements;
- preliminary pro forma cash flow for a ten-year period; and
- key revenue and take-rate assumptions.

The Puerto Rico Broadband Program will require conduit applicants to demonstrate non-grant capital sources and sources to fund any initial operating losses if applicable. The Puerto Rico Broadband Program will use these financial analyses and the proposed plan to attract and retain tenants of the conduit system to determine the applicant's financial and relative capacity.

Prospective subgrantees for the affordable device, navigator, and workforce programs must certify that they have met the following financial standards:

- Necessary financial qualifications in accordance with program obligations;
- Funding reserves or plans to budget for all project costs that exceed the grant amount;
- Ability to sustainably deliver the promised services over the course of the program; and
- Compliance with all program requirements.

To determine if a prospective subgrantee meets the necessary standards, the Puerto Rico Broadband Program will:

- Evaluate applicant organizational capacity for program operations and
- Examine cost estimations within proposed applicant budgets.

Evidence the Puerto Rico Broadband Program may accept in drawing conclusions includes but is not limited to:

- Proposed budget;
- Resumes;
- Organizational charts; and/or
- Narrative detailing experience and qualifications of key management and relevant organizational policies;
- Narrative detailing financial capability, including that the prospective subgrantee:
 - Is financially qualified to meet the obligations associated with the project;
 - Will have available funds for all projects costs that exceed the amount of the grant;
 - Will comply with all Program requirements; and
 - Has and will continue to have sufficient financial resources to cover its eligible costs for the project until such time as the Puerto Rico Broadband Program authorizes additional disbursements

During the competitive bidding process for the conduit developer, prospective subgrantees will be required to submit resumes for all key management personnel and any necessary organizational charts detailing all parents, subsidiaries, and affiliates. Each prospective conduit subgrantee must also provide a narrative describing its readiness to manage the open access conduit system. This narrative, for all non-deployment subgrantees, should describe the experience and qualifications of key management for undertaking the respective project, its experience undertaking projects of similar size and scope, recent and upcoming organizational changes including mergers and acquisitions, and relevant organizational policies. The Puerto Rico Broadband Program will not approve a grant until submitted documents demonstrate the prospective subgrantee's managerial capability.

The Puerto Rico Broadband Program may require a prospective subgrantee to agree to special grant conditions relating to maintaining the validity of representations a prospective subgrantee has made regarding its organizational structure and key personnel.

Technical and Operational Capability

The Puerto Rico Broadband Program will certify that prospective non-deployment subgrantees have the technical and operational capability to manage the services outlined in the subgrant in the manner discussed by the subgrant award.

The Puerto Rico Broadband Program will request materials from each conduit applicant to certify that each is technically qualified to complete and operate the proposed conduit project and is capable of carrying out the project in a competent manner, including use of an appropriately skilled workforce. During the competitive bidding process, conduit applicants will commit to using an appropriately skilled and credentialed workforce to deploy the conduit system. The selected subgrantee will:

- Ensure the use of an appropriately skilled workforce, e.g., through Registered Apprenticeships or other joint labor-management training programs that serve all workers;
- Take steps to ensure that all members of the project workforce will have appropriate credentials, e.g., appropriate and relevant pre-existing occupational training, certification, and licensure;
- Disclose whether the workforce is unionized and whether the workforce will be directly employed or whether work will be performed by a subcontracted workforce; and
- Identify the contractors and subcontractors that will be carrying out the proposed work.

If the project workforce or any subgrantee's, contractor's, or subcontractor's workforce is not unionized, the prospective conduit subgrantee must also provide with respect to the non-union workforce:

- The job titles and size of the workforce (Full-Time Equivalent [FTE] positions, including for contractors and subcontractors) required to carry out the proposed work over the course of the project and the entity that will employ each portion of the workforce and
- For each job title required to carry out the proposed work (including contractors and subcontractors), a description of:
 - safety training, certification, and/or licensure requirements (e.g., Occupational Safety and Health Administration [OSHA] 10,⁵³ OSHA 30,⁵⁴ confined space, traffic control, or other training as relevant depending on title and work), including whether there is a robust in-house training program with established requirements tied to certifications, titles and
 - information on the professional certifications and/or in-house training in place to ensure that deployment is done at a high standard.

During the competitive bidding process, the Puerto Rico Broadband Program will require each prospective conduit subgrantee to certify that is technically qualified to complete and operate the conduit system and that it is capable of carrying out the funded activities in a competent manner by including a summary of its operating history, financial information, and business size and stability to demonstrate technical and operational capability. Required materials for prospective conduit subgrantees will include:

- Conduit network design and estimated cost;
- Build-out timeline and milestones for implementation, evidencing complete build-out and initiation of tenant use within four (4) years of the date on which the entity receives the subgrant, all certified by a professional engineer;
- Organization history;
- Documented past performance of similar projects;
- Demonstration of financial stability;

⁵³ OSHA 10 is a ten (10) hour safety course designated by OSHA to cover safety basics for workers in high-risk industries.

⁵⁴ OSHA 30 is a supervisor level OSHA Outreach course, designed to introduce workers to their basic rights and protections under OSHA and give them initial awareness training on common safety topics for their industry, among other things.

- Risk management plan;
- Relevant licenses and certifications;
- History of participation and successful completion of grant programs, whether federal or local; and
- Staffing and management capacity.

The Puerto Rico Broadband Program will provide all prospective conduit subgrantees an engineered design that includes a core route of critical locations and additional access points. During the competitive bidding process, applicants will be required to submit materials demonstrating their ability and plan to complete the conduit project as presented in the design. Applicants will be required to submit project costs, a build-out timeline, milestones for project implementation, and a capital investment schedule evidencing complete build-out and the initiation of tenant agreements within four (4) years of the date on which the entity receives the subgrant. Prospective conduit subgrantees may elect to modify the provided engineered design to include all or portions of the secondary route. Any additional routes provided by a prospective subgrantee must be incorporated in the complete network design and certified by a professional engineer.

All conduit applicants will have access to determinations made by the Puerto Rico Broadband Program's engineering services to complement planning conducted by the applicant for a competitive bid. All applicants may use the engineered design prepared by the engineering contractor; bidders who do not must demonstrate that an alternative design provides the functional equivalent. The Puerto Rico Broadband Program will not approve any grant for the conduit system until submitted documents demonstrate the prospective subgrantee's technical capability.

The Puerto Rico Broadband Program will require each prospective conduit subgrantee to attest to and specify the number of years the prospective subgrantee or its parent company has been operating. As the subgrantee will be deploying conduit infrastructure, in lieu of service distribution history, the Puerto Rico Broadband Program will require prospective subgrantees to provide a narrative describing any past projects similar in scope or activity that have prepared the prospective subgrantee to deploy and operate the proposed conduit system. Prospective subgrantees will be required to provide a detailed prospectus and pro forma detailing their business plans, expected revenue, tenant targets, staffing and management levels, resumes of key personnel, relevant existing project descriptions, and commitments from contractors or subcontractors.

As described in Requirement 8, the Puerto Rico Broadband Program will additionally require prospective subgrantees for the conduit system to comply with letter of credit, ownership, and disclosure requirements in the BEAD NOFO and NTIA guidance.

Prospective subgrantees for the affordable device, navigator, and workforce programs must certify that they have met the following standards:

- Evidence of a skilled workforce,
- Ability to maintain the workforce throughout the program's duration, and
- Experience operating similar programs.

To determine if a prospective subgrantee meets the required stipulations, the Puerto Rico Broadband Program will evaluate the following:

- Existing digital equity and workforce activities to establish minimum viable program standards, and, if applicable, setting minimum credentials for certain employees or contractors;
- Subgrantee plans for partnerships with other entities throughout Puerto Rico; and
- Any other detailed and measurable outcomes supplied by the prospective applicant.

Evidence the Puerto Rico Broadband Program may accept in making its determination includes but is not limited to the following:

- Program design;
- Personnel diagram;
- Project costs;
- Evidence of the professional certifications and/or in-house training for promised services; and/or
- Narrative discussing relevant experiences.

The Puerto Rico Broadband Program will not approve any non-deployment grant unless it determines that the materials submitted demonstrate the prospective subgrantee's technical and operational capability.

Req. 10. Eligible Entity Implementation Activities

2.6.1 Text Box: Describe any initiatives the Eligible Entity proposes to implement as the recipient without making a subgrant, and why it proposes that approach.

The Puerto Rico Broadband Program will implement the following activities as the recipient to facilitate BEAD funding distribution, compliance monitoring, and additional support to partners for successful project implementations.

Challenge Process Portal

For accurate data on community anchor institutions and other critical locations throughout Puerto Rico, the Puerto Rico Broadband Program will launch its own BEAD challenge process to give nonprofit organizations, units of local Governments, and broadband service providers the opportunity to challenge BEAD eligibility of certain community anchor institutions, enforceable commitments, and planned service data.⁵⁵

The Puerto Rico Broadband Program will utilize BEAD funding to launch its own **challenge portal**. Challenges will be submitted through the portal and made visible to the service provider whose service availability and performance is being contested. The portal will notify providers of any challenges through automated email to include the provider's response deadline. The portal will also verify challenges by confirming addresses of broadband serviceable locations and evaluating the quality of scanned images.

Electronic Grants Management System

The Puerto Rico Broadband Program will utilize both its staff and contractor support to design and implement an electronic grants management system across each of its competitive subgrantee programs for non-deployment activities. Electronic grants management system funding will support program management, application processing, and compliance across BEAD activities.

Outreach and Stakeholder Engagement

In addition to program marketing efforts through the PRBIF, the Puerto Rico Broadband Program will use BEAD funds to engage with the wider community and ensure residents are aware of how to take advantage of the non-deployment initiatives, once implemented. The Puerto Rico Broadband Program will design outreach strategies and stakeholder engagement initiatives in line with the following goals.

General Marketing:

- Broad awareness campaign: The Puerto Rico Broadband Program will launch a multi-media campaign to drive awareness of device, navigator, and workforce development programming.
- Direct marketing: Directed digital marketing ads will target populations as relevant for each program.

⁵⁵ For more information on the Puerto Rico Broadband Program's challenge process, see the Initial Proposal Volume 1.

- Direct outreach: With the support of entities operating device, navigator, and broadband workforce training programs, the Puerto Rico Broadband Program will reach targeted populations with device, navigator, and broadband training and employment opportunities.

Student Marketing: Through marketing coordination across academic institutions and employers, the Puerto Rico Broadband Program will help attract students to broadband training programs.

Online Government Services and Staff Project Manager

The Puerto Rico Broadband Program will engage a **contractor to develop accessible online services for key Government agencies**. The development of resources throughout the government will contribute to Puerto Rico's objective of providing fully inclusive and accessible online civic and social services for residents.⁵⁶ Coordination of online tools with Government agency partners will ensure the Government is providing increased online opportunities as residents gain connection through unprecedented investments in broadband and digital equity.

The Puerto Rico Broadband Program will enter a memorandum of understanding (MOU), following the Local Procurement Standards and Manuals, with partner government agencies, especially those supporting resident access to online tools, to utilize this contractor's services to create online functions where needed. The online government services contractor, housed under the Puerto Rico Broadband Program, will require at maximum three (3) total years of implementation to complete the proposed activities with partner government agencies. Continued collaboration and engagement with these agencies will inform the website additions and support increased accessibility for residents throughout Puerto Rico. The Puerto Rico Broadband Program will hire an Online Government Services Project Manager to provide oversight of this initiative and support the successful implementation of this agreement. The online services contractor will first assess the current accessibility and availability of online processes led by the Puerto Rico Broadband Program, ODSEC, ADSEF, and other key Government agencies. Priorities include options for digital procurement of services, accessible mobile interfaces, event information, and connections to community organizations. The contractor will then implement online tools through collaboration with the Puerto Rico Broadband Program and its partners.

⁵⁶ For more information on Puerto Rico's accessibility goals, see the Five-Year Action Plan.

Req. 11. Labor Standards and Protection

2.7.1 Text Box: Describe the specific information that prospective subgrantees will be required to provide in their applications and how the Eligible Entity will weigh that information in its competitive subgrantee selection processes. Information from prospective subgrantees must demonstrate the following and must include information about contractors and subcontractors:

- a. **Prospective subgrantees' record of past compliance with federal labor and employment laws, which:**
 - i. **Must address information on these entities' compliance with federal labor and employment laws on broadband deployment projects in the last three (3) years;**
 - ii. **Should include a certification from an Officer/Director-level employee (or equivalent) of the prospective subgrantee evidencing consistent past compliance with federal labor and employment laws by the subgrantee, as well as all contractors and subcontractors; and**
 - iii. **Should include written confirmation that the prospective subgrantee discloses any instances in which it or its contractors or subcontractors have been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws for the preceding three (3) years.**
- b. **Prospective subgrantees' plans for ensuring compliance with federal labor and employment laws, which must address the following:**
 - i. **How the prospective subgrantee will ensure compliance in its own labor and employment practices, as well as that of its contractors and subcontractors, including:**
 1. **Information on applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction of the broadband network; and**
 2. **How the subgrantee will ensure the implementation of workplace safety committees that are authorized to raise health and safety concerns in connection with the delivery of deployment projects.**

As described in Requirement 9 above, each prospective subgrantee for the conduit system will be required to describe how it will follow strong labor standards, such as those on prevailing wages and local hire provisions, if selected as the developer. The Puerto Rico Broadband Program will require the following information from prospective conduit subgrantees in the application process:

- The prospective subgrantee's record of past compliance with federal labor and employment laws, specifically regarding broadband development projects in the last three years. The Puerto Rico Broadband Program will collect data on the prospective subgrantee's historical use of contracting and subcontracting arrangements, including staffing plans, and at least one example of each contractor and subcontractor's past performance in the context of a similar project,

- A certification from an Officer/Director-level employee (or equivalent) of the prospective subgrantee evidencing consistent past compliance with federal labor and employment laws by the prospective subgrantee, as well as all contractors and subcontractors, and
- Written confirmation that the prospective subgrantee discloses any instances in which it or its contractors have been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws for the preceding three years.

Furthermore, in the application process, the Puerto Rico Broadband Program shall require each prospective subgrantee to detail how the prospective subgrantee will ensure compliance in its own labor and employment practices, as well as that of its contractors and subcontractors, including:

- Information on applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction of the broadband network and
- How the subgrantee will ensure the implementation of workplace safety committees that are authorized to raise health and safety concerns in connection with the delivery of deployment projects.

Each of the above responses regarding a prospective subgrantee's record of past compliance will be factored into the Puerto Rico Broadband Program's review of the application. The Puerto Rico Broadband Program shall give priority to fair labor practices, based on a prospective subgrantee's records of and plans for compliance with federal labor and employment laws. The Puerto Rico Broadband Program will review compliance with fair labor practices as an item in its application review scoring criteria, detailed in enclosed Appendix A. Along with other criteria such as project cost and affordability, the Puerto Rico Broadband Program will review applications and award up to forty (40) points for a subgrantee's demonstrated track record of fair labor practices and a strong plan for compliance with federal labor and employment laws.

2.7.2 Text Box: Describe in detail whether the Eligible Entity will make mandatory for all subgrantees (including contractors and subcontractors) any of the following and, if required, how it will incorporate them into binding legal commitments in the subgrants it makes:

- a. **Using a directly employed workforce, as opposed to a subcontracted workforce;**
- b. **Paying prevailing wages and benefits to workers, including compliance with Davis - Bacon and Service Contract Act requirements, where applicable, and collecting the required certified payrolls;**
- c. **Using project labor agreements (i.e., pre-hire collective bargaining agreements between unions and contractors that govern terms and conditions of employment for all workers on a construction project);**
- d. **Use of local hire provisions;**
- e. **Commitments to union neutrality;**
- f. **Use of labor peace agreements;**
- g. **Use of an appropriately skilled workforce (e.g., through Registered Apprenticeships or other joint labor-management training programs that serve all workers, particularly those underrepresented or historically excluded);**
- h. **Use of an appropriately credentialed workforce (i.e., satisfying requirements for appropriate and relevant pre-existing occupational training, certification, and licensure); and**
- i. **Taking steps to prevent the misclassification of workers.**

The Puerto Rico Broadband Program shall make mandatory the following for the selected subgrantee, as well as its contractors and subcontractors:

- a. Paying prevailing wages and benefits to workers, including compliance with Davis-Bacon and Service Contract Act requirements, where applicable, and collecting the required certified payrolls;
- b. Use of local hire provisions, pursuant to the Government's public policy established in Act No. 42-2018, as amended⁵⁷;
- c. Use of an appropriately credentialed workforce (i.e., satisfying requirements for appropriate and relevant pre-existing occupational training, certification, and licensure).

All subgrantee agreements will encompass mandated federal and state regulations (including the aforementioned items), ensuring adherence to program requirements and compliance with all stipulated obligations.

For prospective subgrantees without a record of labor and employment law compliance, the Puerto Rico Broadband Program shall, in accordance with the BEAD NOFO, allow such prospective subgrantees to make specific, forward-looking commitments to strong labor and employment standards and protections.⁵⁸

⁵⁷ Known as the 'Preference Law for Local Construction Contractors and Suppliers', said act establishes the public policy to reserve at least twenty percent (20%) of Government works contracting for local constructions business or suppliers.

⁵⁸ See BEAD NOFO, p. 43.

Additionally, the Puerto Rico Broadband Program Puerto Rico Broadband Program will detail these labor standards and protections in the subgrantee's grant agreement to be executed with the Puerto Rico Broadband Program. The Puerto Rico Broadband Program will further require specific provisions with which the subgrantee must agree in order to receive grant funding for the conduit system. As the Puerto Rico Broadband Program will not require subgrantees to use a directly employed workforce, certain procurements provisions will emphasize that the subgrantee should prioritize in its procurements employers with high labor standards, no recent violations of federal or state labor and employment laws, and who use project labor agreements and community benefits agreements that offer wages at or above the prevailing rate.

The Puerto Rico Broadband Program additionally shall make available to the subgrantee a subrecipient compliance and reporting guide, within which the various requirements related to labor standards and protections from the BEAD NOFO will be captured and communicated. The Puerto Rico Broadband Program will publish this subgrantee reporting and compliance guide at the Puerto Rico Broadband Program's website related to the implementation of its BEAD programs. The Puerto Rico Broadband Program will also regularly communicate and provide post-award guidance to the subgrantee to ensure compliance with the required labor standards as outlined in the NTIA's BEAD NOFO.

The Puerto Rico Broadband Program's process for regular subgrantee reporting will also focus on compliance with labor standards and protections. The Puerto Rico Broadband Program will require the selected subgrantee to complete and submit a full labor reporting form with every grant disbursement request or quarterly report, whichever one is submitted first. Thereafter, the Puerto Rico Broadband Program will require the subgrantee to submit a labor reporting form on a regular basis.

The Puerto Rico Broadband Program shall communicate in its guidance materials to prospective subgrantees the encouragement from NTIA and/or the U.S. Department of Commerce that capital projects incorporate strong labor standards, including labor agreements and local hire provisions that offer wages at or above the prevailing rate. The Puerto Rico Broadband Program's guidance, in accordance with the BEAD NOFO, will emphasize that if a subgrantee does not utilize union labor or pay at or above the prevailing wage, the wages paid to staff must be reported.⁵⁹

The Puerto Rico Broadband Program, in its post-award guidance, will provide reporting requirement information for the selected subgrantee. The subgrantee may provide a certification that all laborers and mechanics employed by contractors and subcontractors in the performance of the conduit project are paid wages at rates not less than those prevailing, as determined by the U.S. Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly known as the "Davis-Bacon Act"), for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of Puerto Rico.

If such certification is not provided, the subgrantee must provide a Project Employment and Local Impact report detailing:

⁵⁹ BEAD NOFO Section VII.E.2.

- The number of employees of contractors and sub-contractors working on the project;
- The number of employees on the project hired directly and hired through a third party;
- The wages and benefits of workers on the project by classification; and
- Whether those wages are at rates less than those prevailing (as determined by US Secretary of Labor in accordance with the Davis-Bacon Act).

The Puerto Rico Broadband Program will emphasize to the subgrantee that it must maintain sufficient records to substantiate the above information upon request.

In addition, the subgrantee may provide a certification that a project includes a project labor agreement, meaning a pre-hire collective bargaining agreement consistent with section 8(f) of the National Labor Relations Act (29 U.S.C. 158(f)). If the subgrantee does not provide such a certification, the subgrantee must provide a project workforce continuity plan, detailing:

1. How the recipient will ensure the project has ready access to a sufficient supply of appropriately skilled and unskilled labor to ensure high-quality construction throughout the life of the project, including a description of any required professional certifications and/or in-house training;
2. How the recipient will minimize risks of labor disputes and disruptions that would jeopardize timeliness and cost-effectiveness of the project;
3. How the recipient will provide a safe and healthy workplace that avoids delays and costs associated with workplace illnesses, injuries, and fatalities, including descriptions of safety training, certification, and/or licensure requirements for all relevant workers (e.g., OSHA 10, OSHA 30);
4. Whether workers on the project will receive wages and benefits that will secure an appropriately skilled workforce in the context of the local or regional labor market; and
5. Whether the project has completed a project labor agreement.

Finally, the subgrantee will be required to report on whether the project prioritizes local hires as well as whether the project has a Community Benefit Agreement, with a description of any such agreement.

Once the above detailed information is provided, the subgrantee must proceed to review, complete, and sign the certification box and signature section at the conclusion of its labor report certifying and acknowledging the accuracy and completeness of the information provided.

Req. 12. Workforce Readiness

2.8.1 Text Box: Describe how the Eligible Entity and their subgrantees will advance equitable workforce development and job quality objectives to develop a skilled, diverse workforce.

The Puerto Rico Broadband Program is committed to ensuring that Puerto Rico has the skilled workforce needed to meet this historic moment in the broadband industry. Across the nation, there is a shortage of trained fiber-optic installers and front-line electrical workers, as well as network and cybersecurity professionals.⁶⁰ Puerto Rico also faces shortages, which are exacerbated by the following economic factors:

- Outmigration: Puerto Rico has experienced a population decline of approximately -11% from 2010, until 2021. Economic challenges, including relatively high unemployment rates and limited job opportunities, have led many residents to seek better prospects elsewhere, particularly among those under the age of 45.⁶¹ This outmigration has resulted in a reduced local labor pool and shortages in specific industries;
- Skill Mismatches: There may be a disconnect between the skills demanded by employers and the skills possessed by the currently available workforce. The education and training system may not align effectively with the needs of the job market, leading to shortages in certain specialized or technical fields; and
- Aging Population: Puerto Rico has been grappling with an aging population, with a decreasing number of younger workers entering the labor force.⁶² This demographic trend can exacerbate future labor shortages, particularly in industries that require a younger workforce, such as manufacturing and healthcare.

The Puerto Rico Broadband Program estimates that there are currently one thousand, seven hundred (1,700) skilled telecommunications and broadband construction workers in Puerto Rico. To meet the demand generated by federal investments in broadband infrastructure, the Puerto Rico Broadband Program estimates Puerto Rico will focus efforts on the following three occupations:

⁶⁰ FCC, "Telecommunications Interagency Working Group Report on Workforce Needs," January 13, 2023, <https://www.fcc.gov/document/telecom-interagency-working-group-report-workforce-needs>.

⁶¹ As Puerto Rico continues to emerge from the COVID-19 Pandemic, the unemployment rate continues to decline in a trend started in 2010 (reaching a historic low of 5.8% in August, 2022). While unemployment is still relatively high compared to Mainland United States, Puerto Rico has narrowed the gap to just over two percentage (2%) points. In addition, labor force participation, despite being below other States, continues to rise (related in part to the recent expansion of the Earned Income Tax Credit Program in 2021). Source: Fiscal Year 2024 - Certified Fiscal Plan for the Central Government, Volume 1: <https://drive.google.com/file/d/10itiInOYE0HitC8f6ZzbqS61xy8eWYc/view>

⁶² In 2016, Puerto Rico began to experience negative natural population change (i.e., a higher number of deaths than births, a trend that has continued to be unabated). As per Government's projections based on data from the US Census Bureau, from 2010 through 2023, total population has decreased from ~3,726,000, to ~3,255, or -13%, while population from ages 5 to 55, has decreased from ~2,517,000, to ~1,975,000, or -21%. Source: Fiscal Year 2024 - Certified Fiscal Plan for the Central Government, Volume 1: <https://drive.google.com/file/d/10itiInOYE0HitC8f6ZzbqS61xy8eWYc/view>



875-1,310 more broadband technicians needed



515-770 more general construction workers needed



375-560 more client support workers needed

Addressing these forecasted labor shortages requires a multi-faceted approach, including attracting and retaining skilled workers, aligning education and training programs with industry needs, encouraging entrepreneurship and economic diversification, and addressing the underlying economic factors that contribute to outmigration.

The Puerto Rico Broadband Program is committed to developing the island's broadband industry workforce by investing \$19.5 million from Puerto Rico Broadband Infrastructure Funds (PRBIF) and \$15 million from BEAD funds to a workforce development grant program, as described in Requirement 9.

To address the workforce requirements of the BEAD program, the Puerto Rico Broadband Program will require the selected conduit subgrantee to adhere to all labor standards and protections described in Requirement 11 and will be accountable for ensuring that Puerto Rican workers will be highly skilled, have high quality jobs, operate in a safe environment, and have opportunities for career development and advancement.

The following subsections address Puerto Rico Broadband Program's approach to:

- Ensuring a highly skilled workforce;
- Developing sector-based partnerships;
- Creating equitable on-ramps, ensuring job quality and worker voice; and
- Supporting a diversity of workers.

Highly Skilled Workforce

2.8.1 Text Box: Describe how the Eligible Entity and their subgrantees will advance equitable workforce development and job quality objectives to develop a skilled, diverse workforce. At a minimum, this response should clearly provide each of the following, as outlined on page 59 of the BEAD NOFO:

a. A description of how the Eligible Entity will ensure that subgrantees support the development and use of a highly skilled workforce capable of carrying out work in a manner that is safe and effective;

The Puerto Rico Broadband Program is investing \$15 million of BEAD funding and \$19.5 million in Puerto Rico Broadband Infrastructure Funds (PRBIF) to develop a highly skilled broadband workforce, specifically for deployment construction and maintenance. This investment will support the development of human capital, bolster the island's economy, and benefit Puerto

Rico's BEAD conduit project and other broadband deployment efforts. An overview of the BEAD workforce development grant program is found in Requirement 9 (non-deployment program).

Puerto Rico's BEAD conduit subgrantee and its contractors will be required to develop a plan for supporting a highly skilled workforce and will be expected to contribute to the development of broadband industry workforce programs and initiatives that meet employer demands. Please see box 2.8.2 for the subgrantee requirements regarding components of the workforce plan.

Additionally, the conduit subgrantee will be required to participate in upcoming data collection efforts and supply input on maintaining a highly skilled broadband workforce in Puerto Rico that can carry out work in a manner that is safe and effective.

Ensuring Worker Safety in the BEAD program

Implementing and enforcing appropriate labor standards and policies and ensuring protections for all workers involved in Puerto Rico's broadband initiatives will be a priority for the Puerto Rico Broadband Program. To do so, the Puerto Rico Broadband Program will:

1. Consult with industry leaders and stakeholders and implement best practices in worker safety, benefits and pay, and workplace satisfaction;
2. Engage employers, workforce training entities, the Puerto Rico Department of Education and the Puerto Rico Department of Labor and Human Resources on safety issues.
3. Ensure compliance with state and Federal provisions set forth in Requirement 11 above.

Puerto Rico Broadband Program will ensure collaboration with key state agencies and partners to ensure the workforce is highly skilled and can carry out work in a manner that is safe and effective. Additionally, the Puerto Rico Broadband Program will include provisions that the BEAD conduit subgrantee use this skilled workforce and abide by all state and federal labor laws. By enforcing appropriate labor standards and policies, the Government of Puerto Rico will support the well-being of workers, increase job satisfaction, and contribute to the successful implementation of broadband infrastructure throughout Puerto Rico.

Existing Programs for a Highly Skilled Workforce

Currently, Puerto Rico has many broadband-related degree-granting programs, including computer science, information technology, and electrical engineering. These programs produce highly skilled workers who will help grow the industry. Universities offering these programs in the form of either bachelor's and/or master's degrees include, but are not limited to:

- Ana G. Méndez University;
- University of Puerto Rico –Bayamón Campus;
- *Instituto Tecnológico de Puerto Rico*;
- EDP University;
- Interamerican University of Puerto Rico;
- Caribbean University;
- University of Puerto Rico –Mayagüez Campus;
- NUC University –Arecibo Campus; and
- Polytechnic University of Puerto Rico.

The Puerto Rico Broadband Program recognizes the value of these degree programs for residents and employers and will continue to engage with Puerto Rico's universities to ensure alignment between employer needs and academic programs. Additionally, the Puerto Rico Broadband Program will require its BEAD conduit subgrantee join discussions with academic institutions to ensure that degree-granting programs are producing the talent needed to construct and maintain broadband infrastructure in Puerto Rico.

Workforce Development Planning Efforts

Throughout the planning process PRBP has engaged multiple stakeholders to create collaborative, sector-based partnerships and ensure the applicability of planned programs. Stakeholder input was considered when planning the initiatives and programs described.

More than twenty (20) organizations were interviewed regarding current situation and potential solutions:

- Three (3) Government bodies related to education and apprenticeship programs
- Seven (7) Universities and colleges, public and private
- Three (3) Broadband industry organizations and peers
- Employers:
 - o Six (6) Internet service providers / infrastructure owners
 - o Two (2) reseller ISPs
 - o Three (3) Contractors
- One other government agency that implemented similar broadband training programs.

Close engagement with all stakeholders, especially in education and employment, will be necessary for effective implementation of the above-mentioned programs. Engagement will include – but not be limited to – government, industry partners, and education providers working together to determine exact training programs' composition and timeframes.

Program Needs for a Highly Skilled Workforce

To further increase opportunities for Puerto Ricans and to quickly grow the broadband industry, the Government of Puerto Rico will look to high value, non-degree credentials that lead to employment or further education. Demand for credentials with industry-wide recognition has grown in recent decades and accelerated in the wake of the COVID-19 pandemic. According to the National Conference of State Legislatures (NCSL), these credentials are generally:

- Designed to demonstrate competencies for targeted, job-relevant skills that can be tailored to meet labor market demand,
- Far shorter and significantly cheaper than a traditional degree program, and
- Offered by a variety of providers including colleges, universities and technical schools, but also industry groups and other training providers.⁶³

⁶³ "Credentials of Value," National Conference of State Legislatures, February 2023: <https://www.ncsl.org/education/credentials-of-value#:~:text=Brief%20Credentials%20of%20Value&text=States%20are%20focusing%20on%20high,of%20the%20COVID%2D19%20pandemic.>

The Puerto Rico Broadband Program has identified the following relevant job titles that require a credential or training certificate but not a degree. Titles and descriptions are provided below in Figure 18.

Figure 18: Broadband Jobs and Associated Requirements

Job Title	Commonly Listed Requirements
Broadband Technician	High school diploma, OSHA, tower climber, Cisco network certificate, CPR, splicing certificate
Broadband Construction	High school diploma, construction knowledge, heavy equipment operation, Bobcat, Category 9 license, OSHA 10.
Customer Representative	High school diploma or GED, basic telecom knowledge, customer service/communication, soft skills

The Puerto Rico Broadband Program has created career pathways for the above occupations and for an additional three (3) broadband-industry occupations: engineering field support, broadband engineering and planning and broadband regulations. These career pathways will be published after the Initial Proposal.

Planned Workforce Development Initiatives

To meet the workforce needs described above, the Puerto Rico Broadband Program will invest both BEAD funds and PRBIF in developing a highly skilled workforce, with an emphasis on high-demand, short-term credentials. Efforts will focus on program design and piloting, and scaling and promoting successful programs. PRBIF pilot programs will launch in advance of BEAD-funded programs. These programs will include the following broadband-specific programs:

1. **Career and Technical Education courses in 3-5 high schools** for occupations like construction and customer representatives and may include micro-credentials. These pilot programs may be expanded.
2. **Technician program and micro-credentials at Instituto Tecnológico de Puerto Rico (ITPR)**, the island's public community college system for occupations like broadband technicians, customer representatives, and engineering field support specialists for broadband deployment.⁶⁴ The initiative will begin with a pilot program and then be scaled to other locations across the island.
3. **Pilot programs for short-term training programs and certificates** to address the most time-pressing workforce gaps.
4. **Apprenticeship "Navigator" pilot program** to expand existing Registered Apprenticeship Program (RAP) offerings by deploying catalyst funds for employers to establish RAPs,

⁶⁴ "Broadband technician" includes: maintenance / field technician, tower climber, installer, fiber splicer, fixed wireless technician.

investing in employee capacity to provide clear step-by-step support to secure funding / leverage WIOA funds, and subsidizing RAPs programs for the non-WIOA-eligible.

5. **Piloting signing / retention bonus program:** to provide incremental signing bonuses for broadband techs and engineers to attract workforce to the broadband industry and provide career opportunities via ISP partnerships, job fairs, etc. PRBIF will fund program establishment and support, as well as the first ~500 bonuses for students in both non-degree and degree programs.
6. **Marketing & awareness campaign** to attract broadband workers which will include: a multi-media campaign to drive program awareness, direct marketing and outreach and targeted marketing to students.

Using BEAD funds, the Puerto Rico Broadband Program will expand successful credential-bearing pilot programs and Registered Apprenticeship programs. BEAD funds may also be used to develop new programs to fill in any workforce gaps that are not already supported by PRBIF. For more details, please see Requirement 9, Workforce Development Grant Program. NTIA's Workforce Planning Guide highlights training programs that the Puerto Rico Broadband Program will look to as models. These programs include, but are not limited to:

- Fiber Broadband Association's (FBA) Optical Telecom Installer Certification Program
- Wireless Infrastructure Association (WIA) training programs
- Verizon and GenerationUSA Technical Training
- Telecommunications Industry Registered Apprenticeship Program
- Jobs for the Future (JFF) Building Equitable Pathways Program.⁶⁵

The Puerto Rico Broadband Program's BEAD conduit subgrantee will be required to provide input on broadband industry workforce programs and curriculum, recruit graduates from such workforce programs, and ensure that its existing workers have opportunities for additional training and career growth.

Sector Based Partnerships

2.8.1 Text Box (cont.): b. a description of how the Eligible Entity will develop and promote sector-based partnerships among employers, education and training providers, the public workforce system, unions and worker organizations, and community-based organizations that provide relevant training and wrap-around services to support workers to access and complete training (e.g., child care, transportation, mentorship), to attract, train, retain, or transition to meet local workforce needs and increase high-quality job opportunities;

Throughout the BEAD program implementation, the Government of Puerto Rico will continue to coordinate and partner with workforce stakeholders to ensure that the local broadband workforce is prepared to meet the needs of employers. Engaging in partnerships and collaboratively developing training programs will be a responsibility of the selected BEAD conduit subgrantee, as defined in the subgrantee contract.

⁶⁵ Internet for All, Workforce Planning Guide, National Telecommunications and Information Administration, https://broadbandusa.ntia.doc.gov/sites/default/files/2022-10/DOC_NTIA_Workforce%20Planning%20Guide_FINAL_100722.pdf

Existing Sector-Based Partnerships

The Puerto Rico Broadband Program and its partners have been engaged with a range of stakeholders and partners, including internet service providers and training providers, industry organizations, universities, and other departments within the Government to better understand the broadband industry workforce landscape and emerging needs.

Leveraging the Digital Equity Advisory Subcommittee

Building upon consultations with unions and workforce organizations, employers, and education and training providers, the Puerto Rico Broadband Program will utilize the Digital Equity Advisory Subcommittee as a springboard for bringing workforce issues to light. The committee will act as a platform for discussing broadband workforce strategies, providing updates on the current state of the industry during implementation, and addressing feedback. The Puerto Rico Broadband Program encourages participation from unions and workforce organizations, universities, training programs, service providers and others in these meetings, and commits to evaluating their insight.

The Digital Equity Advisory Subcommittee will support workforce strategies and contribute to the program's capacity to connect broadband workforce interventions with additional employment opportunities throughout Puerto Rico. By combining labor discussions into the Digital Equity Advisory Subcommittee's agenda, the Puerto Rico Broadband Program aims to elevate these important discussions to a wider audience with different perspectives and expertise and increase efficiency.

Building Upon Agency Partnerships

The Puerto Rico Broadband Program will consider expanding existing workforce initiatives hosted by other government offices. For example, the Puerto Rico Department of Economic Development and Commerce (DDEC) has led a multi-year effort to bolster on-island opportunities in information technology.⁶⁶ The Puerto Rico Broadband Program will evaluate efforts to integrate current support of information technology jobs and training with other career paths by exploring options for digital support applicable to all members of the workforce.

Emerging Sector-Based Partnership

The Puerto Rico Broadband Program continues to engage in opportunities for partnerships with industry associations. These partnerships will allow stakeholders to grow capacity at local colleges and universities to offer non-degree specialized courses. The Puerto Rico Broadband Program has identified industry partners to engage, including the Fiber Broadband Association, the Wireless Infrastructure Association, and the National Telephone Cooperative Association. These partners and others will weigh in on critical issues including:

- Implementing pilot programs
- Providing input on curricula

⁶⁶ DDEC's Executive Director is the Government's Executive Branch officer mainly responsible for matters related to Puerto Rican Commerce, created pursuant to Section 6, Article IV, of the Constitution of Puerto Rico. DDEC has been operationalized through several laws, the latest being Act No. 141 of 2018.

- Forming direct contracts with internet service providers
- Standardizing certification programs to fit industry needs
- Preparing students for interviews and/or
- Developing and deploying apprenticeship programs.

The Puerto Rico Broadband Program and the Digital Equity Advisory Subcommittee will ensure that the educational opportunities, services, available funds, programs, and other workforce development opportunities are known to employers and Puerto Ricans by bringing together key stakeholders to accomplish the following goals:

- Determine what skills are needed, design education and training programs with employers to ensure program graduates have the skills employers need;
- Communicate about broadband career opportunities to inform all Puerto Ricans of available high-quality broadband jobs; and
- Provide relevant training and wrap-around services for workers to access and complete training (e.g., childcare, transportation, mentorship), to attract, train, retain, or transition to meet local workforce needs and increase high-quality job opportunities.

Wrap-Around Services

The Puerto Rico Broadband Program will work to connect its current and future workforce (in both deployment/construction occupations and in other industry-related occupations) with relevant social services to attract, train, and retain workforce members and meet their needs. The Puerto Rico Broadband Program will promote public resources and encourage the conduit subgrantee to do the same. These services include, but are not limited to, the following (many housed within government agency partners ODSEC and ADSEF):

- Public transportation
- Public healthcare
- Financial assistance for childcare
- Low-Income Energy Assistance Program
- NAP/SNAP; and/or
- Temporary Assistance for Needy Families (TANF).

Additionally, the Puerto Rico Broadband Program will encourage its Government agency partners to promote broadband industry workforce development opportunities to their current clients. These wrap-around services will help Puerto Ricans overcome the barriers to education, training and employment and will promote access to entering the broadband industry, especially for underrepresented groups.

Through sector-based partnerships between Government, education and training partners, community partners, industry and others, the Puerto Rico Broadband Program will continue to support efforts to sustain the workforce as needed. Regular communication with partners will ensure that all stakeholders work toward the same goal and efficiently leverage available resources and programs.

Equitable On Ramps, Job Quality and Worker Voice

2.8.1 Text Box (cont.): c. a description of how the Eligible Entity will plan to create equitable on-ramps into broadband-related jobs, maintain job quality for new and incumbent workers

engaged in the sector; and continually engage with labor organizations and community-based organizations to maintain worker voice throughout the planning and implementation process.

The Puerto Rico Broadband Program is committed to supporting a diverse workforce through equitable on-ramps into high-quality broadband-related jobs. To do so, the Puerto Rico Broadband Program will examine best practices that leverage intermediaries to connect working-class adults to better economic opportunities in the broadband sector. Across the country, on-ramp programs serve learners with significant barriers to accessing opportunity. According to research by the Strada Institute, for the Future of Work and Entangled Solutions, on-ramp programs can take many forms and done well, will “boost skills, employment, and earnings for working class adults and connect them faster and more directly to employers seeking new and more diverse talent pipelines.”⁶⁷ The Puerto Rico Broadband Program will consider developing short-term programs that include the following best practices:

- Intensive assessments and screening
- Opportunities for experiential learning
- Technical skills training
- Soft skills training
- Wraparound support, and
- Job placement and advancement services.⁶⁸



Image source: On-Ramps to Good Jobs, Strada Institute for the Future of Work and Entangled Solutions, 2019, <https://stradaeducation.org/report/on-ramps-to-good-jobs/>

Through continued engagement with labor organizations, community-based organizations, the University of Puerto Rico, the Puerto Rico Department of Education’s Community College System, and others, the Puerto Rico Broadband Program will ensure that workers’ voices continue to inform the planning and implementation process. The Puerto Rico Broadband

⁶⁷ On-Ramps to Good Jobs, Strada Institute for the Future of Work and Entangled Solutions, 2019, <https://stradaeducation.org/report/on-ramps-to-good-jobs/>

⁶⁸ Ibid Strada Institute

Program will convene key workforce development stakeholders, with worker representation, to ensure alignment with employer needs.

The efforts described above will strengthen the Puerto Rico Broadband Program's relationships with employers and training providers to best serve the interests of all Puerto Ricans. To further cement equity in its processes, the Puerto Rico Broadband Program will ensure that the BEAD conduit subgrantee and PRBIF subgrantees will:

- Maintain job quality for new and incumbent workers engaged in the sector through addressing:
 - Living wage;
 - Benefits;
 - Career building through providing education and training opportunities for advancement.⁶⁹
- Ensure fair workplaces:
 - Engage with labor organizations and community-based organizations to maintain worker voice and
 - Ensure programs and training opportunities are timely, accessible, and meet employers' needs.

Diversity of Workers

2.8.1 Text Box (cont.): d. a description of how the Eligible Entity will ensure that the job opportunities created by the BEAD Program and other broadband funding programs are available to a diverse pool of workers.

The Puerto Rico Broadband Program recognizes the value of diversity in the workforce and is committed to initiatives that work toward this goal. As outlined in the Digital Equity Plan, the Puerto Rico Broadband Program has already begun this work by consulting with various stakeholders and spearheading discussions surrounding equitable workforce strategies through the April 2023 Smart Island Summit.⁷⁰

Increasing Awareness

To increase awareness of broadband industry careers, the government of Puerto Rico will use PRBIF to target populations through marketing campaigns and partnerships with corporations, government agencies, schools, and other relevant organizations. The Puerto Rico Broadband Program plans to consider the following initiatives to attract a diversity of workers to the industry:

- Definition and segmentation of audience to inform marketing strategy;
- Design marketing strategy to promote awareness of on-ramps and recruit more potential students to non-degree programs;

⁶⁹ Clark, J., 2017. Insight at Pacific Community Ventures, Moving Beyond Job Creation, National Fund for Workforce Solutions. United States of America. Retrieved from <https://policycommons.net/artifacts/2136314/insight-at-pacific-community-ventures/2891612/> on 28 Aug 2023. CID: 20.500.12592/w7b7fm.

⁷⁰ Puerto Rico Broadband Program, "Digital Equity Plan Initial Draft." https://docs.pr.gov/files/Broadband/Digital%20Equity%20Plan/PRBP_Digital%20Equity%20INITIAL%20DRAFT.pdf.

- Targeted outreach to recruit underrepresented populations for available positions;
- Define learning experience required for degree and non-degree positions and request for proposals requirements;
- Identify key partners that support underrepresented communities;
- Define matching process and apprenticeship model in alignment with feedback from target employers; and/or
- Identify the most impactful wrap-around services to drive enrollment and retention (ex: career center that offers advisement, interview training, and wardrobe assistance).

Promoting Access to Training Opportunities for a Diversity of Puerto Ricans

The Puerto Rico Broadband Program will explore the following diversity, equity, and inclusion initiatives for Puerto Ricans to enter and be successful in non-degree programs and improving and/or adding these offerings for students in degree programs:

- Providing career-centers staffed with advisors specializing in non-degree and broadband job-seeking student needs, particularly staff that will help connect members of underrepresented populations with additional resources they find helpful when searching for a job;
- Encouraging partnering organizations to establish pipelines for diversity recruitment programs;
- Establishing affinity group programs for underrepresented groups to create pathways for additional mentorship, support, and career advancement;
- Utilizing local expertise to build equity-informed curricula for all educational programs;
- Providing accommodations and support for non-degree program students with disabilities;
- Partnering with an external organization to provide financial literacy workshops to students;
- Creating pathways for feedback that will help the Puerto Rico Broadband Program and its partners continue to iterate and improve upon its procedures;
- Allocating monetary resources to provide scholarships and/or other financial support for students from lower socioeconomic backgrounds.
- Facilitating increased remote education and work opportunities, particularly for those living in rural areas;
- Welcoming feedback from local advocacy groups, union representatives, and other entities committed to advancing diversity and equity in workplace initiatives; and/or
- Expanding the reach of social service offerings, such as childcare, public transportation, and mentorship.

The Puerto Rico Broadband Program commits to continue iterating based on community feedback to ensure that its programs are best serving members of underrepresented groups. The Puerto Rico Broadband Program will facilitate connections with the BEAD conduit subgrantee to relevant entities engaging with diversity, equity, and inclusion work to cultivate synergies across workstreams.

Information Required of Prospective Subgrantees

2.8.2 Text Box: Describe the information that will be required of prospective subgrantees to demonstrate a plan for ensuring that the project workforce will be an appropriately skilled and credentialed workforce. These plans should include the following:

- a. The ways in which the prospective subgrantee will ensure the use of an appropriately skilled workforce, e.g., through Registered Apprenticeships or other joint labor management training programs that serve all workers;
- b. The steps that will be taken to ensure that all members of the project workforce will have appropriate credentials, e.g., appropriate and relevant pre-existing occupational training, certification, and licensure;
- c. Whether the workforce is unionized;
- d. Whether the workforce will be directly employed or whether work will be performed by a subcontracted workforce; and
- e. The entities that the proposed subgrantee plans to contract and subcontract with in carrying out the proposed work.

If the project workforce or any subgrantee's, contractor's, or subcontractor's workforce is not unionized, the subgrantee must also provide with respect to the non-union workforce:

- a. The job titles and size of the workforce (FTE positions, including for contractors and subcontractors) required to carry out the proposed work over the course of the project and the entity that will employ each portion of the workforce;
- b. For each job title required to carry out the proposed work (including contractors and subcontractors), a description of:
 - i. Safety training, certification, and/or licensure requirements (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training as relevant depending on title and work), including whether there is a robust in-house training program with established requirements tied to certifications, titles; and
 - ii. Information on the professional certifications and/or in-house training in place to ensure that deployment is done at a high standard.

The Puerto Rico Broadband Program will require that prospective conduit subgrantees and subcontractors advance the Puerto Rico Broadband Program's workforce development initiatives, ensuring the conduit project workforce will be appropriately skilled and credentialed. Prospective subgrantees must develop a workforce plan that includes:

- a) Ensuring the use of an appropriately skilled workforce, e.g., through Registered Apprenticeships or other joint labor-management training programs that serve all workers;
- b) Ensuring that all members of the project workforce will have appropriate credentials, e.g., appropriate and relevant pre-existing occupational training, certification, and licensure;
- c) Discussing whether the workforce is unionized;
- d) Clarifying if it will be directly employing workers or whether the work will be performed by a subcontracted workforce; and
- e) Listing the contractors and subcontractors carrying out the proposed work, if applicable.

If the project workforce or any prospective subgrantee's, contractor's, or subcontractor's workforce is not unionized, the subgrantee must also provide with respect to the non-union workforce:

- a. The job titles and size of the workforce (FTE positions, including for contractors and subcontractors) required to carry out the proposed work over the course of the project and the entity that will employ each portion of the workforce and
- b. For each job title required to carry out the proposed work (including contractors and subcontractors), a description of:
 - i. Safety training, certification, and/or licensure requirements (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training as relevant depending on title and work), including whether there is a robust in-house training program with established requirements tied to certifications, titles and
 - ii. Information on the professional certifications and/or in-house training in place to ensure that deployment is done to a high standard.

Req. 13. Minority Business Enterprises (MBEs and Women's Business Enterprises (WBEs) / Labor Surplus Area Firms Inclusion

2.9.1 Text Box: Describe the process, strategy, and the data tracking method(s) the Eligible Entity will implement to ensure that minority businesses, women-owned business enterprises (WBEs), and labor surplus area firms are recruited, used, and retained when possible.

Puerto Rico Broadband Program Process

The Puerto Rico Broadband Program is committed to a comprehensive and actionable strategy for the recruitment, utilization, and retention of Minority Business Enterprises (MBEs), Women's Business Enterprises (WBEs), and labor surplus area firms. This commitment is demonstrated through a detailed approach, leveraging local resources and implementing effective tracking methods to ensure these entities are actively engaged and supported throughout the lifecycle of BEAD-funded infrastructure projects.

Engagement and Utilization Strategy

To effectively engage and utilize MBEs, WBEs, and labor surplus area firms, the Puerto Rico Broadband Program will leverage Local and State Organizations: We will partner with Puerto Rican economic development and community organizations, including chambers of commerce, minority-serving institutions, local colleges and universities, and industry-specific organizations. These partnerships will serve to:

- Broaden awareness of procurement and subcontracting opportunities.
- Participate and, as feasible, host (or co-host) workshops and seminars tailored to the needs of MBEs, WBEs, and labor surplus area firms, focusing on capacity building and competitive bidding processes.

Our outreach strategy will include targeted recruitment efforts to ensure a diverse pool of applicants. This will involve:

- Direct outreach campaigns utilizing social media, local media, and community-based newsletters.
- Engagement with local business associations and minority business councils to disseminate project information and solicit participation.

To ensure accountability and the effective utilization of MBEs, WBEs, and labor surplus area firms, the Puerto Rico Broadband Program will work with available tools and technology to develop and implement a data tracking system. This system will allow PRBP to track participation rates, evaluate the effectiveness of engagement strategies, generate reports, and allow for a feedback mechanism.

Additional information regarding 2.9.2 affirmative steps Affirmative steps:

Solicitation Lists

- a. Placing qualified small and minority businesses and women's business enterprises on solicitation lists; The Puerto Rico Broadband Program will conduct virtual and in-person outreach events to share project opportunities and provide information on contracting with the Puerto Rico Broadband Program. Qualified small and minority businesses and WBE's in attendance at such events will have the opportunity to be added to the

solicitation list.

Potential Source Solicitation

- b.** Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

In order to ensure that qualified WBE, MBE, and disadvantaged and labor surplus area-owned businesses are included on solicitation lists, the Puerto Rico Broadband Program will strive to create a MBE/WBE directory relating to the broadband industry which will include suppliers, carriers, contractors and engineers. The Puerto Rico Broadband Program will create a registration link for MBE's and WBE's to register at the Puerto Rico Broadband Program's website. Utilizing this directory of MBE/WBE registered companies, the Puerto Rico Broadband Program will share any open solicitations for projects related to the construction and maintenance of BEAD infrastructure. Additionally, the Puerto Rico Broadband Program will encourage qualified businesses to register with the Secretary of State's office to market their services and products.

Division of Total Requirements to Permit Maximum MBE, WBE Participation

- c.** Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

Whenever it is economically feasible to do so, the Puerto Rico Broadband Program will divide total program requirements into smaller tasks or quantities to facilitate maximum participation by MBE's and WBE's. It shall accomplish this by identifying particular competencies of such MBE's and WBE's and creating requirements which align with the services and products of the qualified MBE's and WBE's on the solicitation lists.

To facilitate this, the Puerto Rico Broadband Program will seek to minimize the consolidation of procurements for goods and services into one (1) contract and require prime vendors to strengthen their subcontracting plans and goals for small and diverse business participation through provisions in the Puerto Rico Broadband Program's contracts with prime vendors. The Puerto Rico Broadband Program will regularly assess and require regular reporting by prime vendors to lessen the likelihood that contracts will be unnecessarily bundled. Where contracts are bundled, the Puerto Rico Broadband Program will encourage groups of small entities to compete for such contracts.

Establishing Delivery Schedules

d. and e.: Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce;

When allowed for by the requirement, the Puerto Rico Broadband Program shall accommodate, establish, and provide for delivery schedules that will encourage participation by small and minority businesses and women's business enterprises. It will accomplish this by requiring contracting officers to facilitate participation of MBE's, WBE's, and Labor surplus area owned businesses in solicitations and quotes for preparation time, scopes of work, and

delivery schedules.

As part of this, the Puerto Rico Broadband Program will ensure organizational compliance with the Requirements for Delivery or Performance Schedules, as set forth in the Federal Acquisition Regulations (FAR) Subpart 11.4, relating to contracting officer compliance.

The Puerto Rico Broadband Program shall utilize the services and assistance of the Small Business Administration (SBA) and the Minority Business Development Agency (MBDA) of the U.S. Department of Commerce.

- f. Requiring subgrantees to take the affirmative steps listed above as it relates to subcontractors.

In communications with subgrantees, the Puerto Rico Broadband Program shall emphasize that subgrantees must take the affirmative steps detailed above to MBE and WBE recruitment related to subcontractors of the subgrantee. The Puerto Rico Broadband Program shall accomplish this throughout the administration of BEAD subgrants, from the application process, subgrantee selection process, and award administration, monitoring, and compliance processes. The Puerto Rico Broadband Program will do this by incorporating these requirements in its application questions, informational webinars and award orientation materials and programs, and through the inclusion of provisions in its grant agreements requiring subgrantees to take each of the affirmative steps detailed above with regard to solicitation lists, active solicitation, division of program requirements, favorable delivery schedules, and the use of the SBA and MBDA of the Department of Commerce.

In addition, the Puerto Rico Broadband Program will require subgrantees to have a plan of action that may include but is not limited to the following:

- Formal commitment letters from the subgrantee confirming the organization's commitment to supplier diversity,
- An outreach plan for awareness and providing information and contacts related to diverse recruitment, including information sessions (virtual or in-person), email campaigns, social media posts, or other activities, and
- Deployment/enhancement of the subgrantee's internal supplier diversity program demonstrating subgrantee commitment to supplier inclusion and equitable procurement practices.

Data Tracking Methods

The Puerto Rico Broadband Program will incorporate a provision in its grant agreements with subgrantees whereby, in addition to agreeing to other nondiscrimination provisions in the grant agreement, it will recruit, use, and retain, MBEs, WBEs, and labor surplus area firms when possible. By virtue of participation in the BEAD program as a subgrantee of the Puerto Rico Broadband Program, subgrantees will agree that the subgrantee, its contractors, and its subcontractors will each demonstrate they have made "good faith efforts" to recruit, use, and retain MBE's, WBE's, and labor surplus firms when possible, from the Puerto Rico Broadband Program's list of certified MBE, WBE, and labor surplus firms. The Puerto Rico Broadband Program will communicate in the grant agreement and supplemental compliance information—including but not limited to subgrantee compliance guidance—that the subgrantee and its contractors shall demonstrate that each has made good faith efforts. The subgrantee shall provide, at a minimum, the following to the Puerto Rico Broadband Program in documenting

the good faith efforts of it and any contractors:

- Copies of any solicitations of MBE's and/or WBE's listed in the Puerto Rico Broadband Program's directory of certified businesses, and any responses thereto;
- If responses to the contractor's solicitations were received, but an MBE and/or WBE not selected, the specific reasons that such enterprise was not selected;
- Copies of any advertisements for participation by certified MBE's and/or WBE's timely published in appropriate general circulation, trade and MBE and/or WBE-oriented publications, together with the listing(s) and date(s) of the publication of such advertisements; and
- Information describing the specific steps undertaken to reasonably structure the contract scope of work for the purpose of subcontracting with, or obtaining supplies from, certified MBEs and/or WBEs.

In addition to the information provided by the subgrantees above, the Puerto Rico Broadband Program may also consider the following to determine whether the subgrantee/contractor/subcontractors have demonstrated good faith efforts:

- Whether the subgrantees/contractors submitted an alternative utilization plan consistent with the subcontract or supplier opportunities in the contract;
- The number of MBEs and WBEs in the region listed in the directory of certified businesses that could, in the judgment of the Puerto Rico Broadband Program, perform work required;
- The actions taken by the subgrantee/contractor to contact and assess the ability of certified MBEs and WBEs located outside of the region in which the grant agreement scope of work is to be performed to participate on the project;
- Whether the subgrantee/contractor provided relevant plans, specifications or terms and conditions to MBEs and WBEs sufficiently in advance to enable them to prepare an informed response to a contractor request for participation as a subcontractor or supplier;
- The terms and conditions of any subcontract or provision of suppliers offered to certified MBEs and WBEs and a comparison of such terms and conditions with those offered in the ordinary course of the subgrantee/contractor's business and to other subcontractors or suppliers of the subgrantee or contractor; and
- Any other information that is relevant or appropriate to determining whether the subgrantee/contractor has demonstrated a good faith effort.

Puerto Rico Broadband Program Strategy

2.9.2 Check Box: Certify that the Eligible Entity will take all necessary affirmative steps to ensure minority businesses, women's business enterprises, and labor surplus area firms are used when possible, including the following outlined on pages 88 – 89 of the BEAD NOFO:

Solicitation Lists

a. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

The Puerto Rico Broadband Program will conduct virtual and in-person outreach events to share project opportunities and provide information on contracting with the Puerto Rico Broadband Program. Qualified small and minority businesses and WBE's in attendance at such events will have the opportunity to be added to the solicitation list.

Potential Source Solicitation

b. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

In order to ensure that qualified WBE, MBE, and disadvantaged and labor surplus area-owned businesses are included on solicitation lists, the Puerto Rico Broadband Program will strive to create a MBE/WBE directory relating to the broadband industry which will include suppliers, carriers, contractors and engineers. The Puerto Rico Broadband Program will create a registration link for MBE's and WBE's to register at the Puerto Rico Broadband Program's website. Utilizing this directory of MBE/WBE registered companies, the Puerto Rico Broadband Program will share

any open solicitations for projects related to the construction and maintenance of BEAD infrastructure. Additionally, the Puerto Rico Broadband Program will encourage qualified businesses to register with the Secretary of State's office to market their services and products.

Division of Total Requirements to Permit Maximum MBE, WBE Participation

c. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

Whenever it is economically feasible to do so, the Puerto Rico Broadband Program will divide total program requirements into smaller tasks or quantities to facilitate maximum participation by MBE's and WBE's. It shall accomplish this by identifying particular competencies of such MBE's and WBE's and creating requirements which align with the services and products of the qualified MBE's and WBE's on the solicitation lists.

To facilitate this, the Puerto Rico Broadband Program will seek to minimize the consolidation of procurements for goods and services into one (1) contract and require prime vendors to strengthen their subcontracting plans and goals for small and diverse business participation through provisions in the Puerto Rico Broadband Program's contracts with prime vendors. The Puerto Rico Broadband Program will regularly assess and require regular reporting by prime vendors to lessen the likelihood that contracts will be unnecessarily bundled. Where contracts are bundled, the Puerto Rico Broadband Program will encourage groups of small entities to compete for such contracts.

Establishing Delivery Schedules

d) and e): Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce;

When allowed for by the requirement, the Puerto Rico Broadband Program shall accommodate, establish, and provide for delivery schedules that will encourage participation by small and minority businesses and women's business enterprises. It will accomplish this by requiring contracting officers to facilitate participation of MBE's, WBE's, and Labor surplus area owned businesses in solicitations and quotes for preparation time, scopes of work, and delivery schedules.

As part of this, the Puerto Rico Broadband Program will ensure organizational compliance with the Requirements for Delivery or Performance Schedules, as set forth in the Federal Acquisition Regulations (FAR) Subpart 11.4, relating to contracting officer compliance.⁷¹

The Puerto Rico Broadband Program shall utilize the services and assistance of the Small Business Administration (SBA) and the Minority Business Development Agency (MBDA) of the U.S. Department of Commerce.

⁷¹ Federal Acquisition Regulations, "11.4 Delivery and Performance Schedules (11.401-11.404)," October 11, 2023, https://www.acquisition.gov/far/part-11#FAR_Subpart_11.4.

f) Requiring subgrantees to take the affirmative steps listed above as it relates to subcontractors.

In communications with subgrantees, the Puerto Rico Broadband Program shall emphasize that subgrantees must take the affirmative steps detailed above to MBE and WBE recruitment related to subcontractors of the subgrantee. The Puerto Rico Broadband Program shall accomplish this throughout the administration of BEAD subgrants, from the application process, subgrantee selection process, and award administration, monitoring, and compliance processes. The Puerto Rico Broadband Program will do this by incorporating these requirements in its application questions, informational webinars and award orientation materials and programs, and through the inclusion of provisions in its grant agreements requiring subgrantees to take each of the affirmative steps detailed above with regard to solicitation lists, active solicitation, division of program requirements, favorable delivery schedules, and the use of the SBA and MBDA of the Department of Commerce.

In addition, the Puerto Rico Broadband Program will require subgrantees to have a plan of action that may include but is not limited to the following:

- Formal commitment letters from the subgrantee confirming the organization's commitment to supplier diversity,
- An outreach plan for awareness and providing information and contacts related to diverse recruitment, including information sessions (virtual or in-person), email campaigns, social media posts, or other activities, and
- Deployment/enhancement of the subgrantee's internal supplied diversity program demonstrating subgrantee commitment to supplier inclusion and equitable procurement practices.

Data Tracking Methods

The Puerto Rico Broadband Program will incorporate a provision in its grant agreements with subgrantees whereby, in addition to agreeing to other nondiscrimination provisions in the grant agreement, it will recruit, use, and retain, MBEs, WBEs, and labor surplus area firms when possible. By virtue of participation in the BEAD program as a subgrantee of the Puerto Rico Broadband Program, subgrantees will agree that the subgrantee, its contractors, and its subcontractors will each demonstrate they have made "good faith efforts" to recruit, use, and retain MBE's, WBE's, and labor surplus firms when possible, from the Puerto Rico Broadband Program's list of certified MBE, WBE, and labor surplus firms. The Puerto Rico Broadband Program will communicate in the grant agreement and supplemental compliance information—including but not limited to subgrantee compliance guidance—that the subgrantee and its contractors shall demonstrate that each has made good faith efforts. The subgrantee shall provide, at a minimum, the following to the Puerto Rico Broadband Program in documenting the good faith efforts of it and any contractors:

- Copies of any solicitations of MBE's and/or WBE's listed in the Puerto Rico Broadband Program's directory of certified businesses, and any responses thereto;
- If responses to the contractor's solicitations were received, but an MBE and/or WBE not selected, the specific reasons that such enterprise was not selected;

- Copies of any advertisements for participation by certified MBE's and/or WBE's timely published in appropriate general circulation, trade and MBE and/or WBE-oriented publications, together with the listing(s) and date(s) of the publication of such advertisements; and
- Information describing the specific steps undertaken to reasonably structure the contract scope of work for the purpose of subcontracting with, or obtaining supplies from, certified MBEs and/or WBEs.

In addition to the information provided by the subgrantees above, the Puerto Rico Broadband Program may also consider the following to determine whether the subgrantee/contractor/subcontractors have demonstrated good faith efforts:

- Whether the subgrantees/contractors submitted an alternative utilization plan consistent with the subcontract or supplier opportunities in the contract;
- The number of MBEs and WBEs in the region listed in the directory of certified businesses that could, in the judgment of the Puerto Rico Broadband Program, perform work required;
- The actions taken by the subgrantee/contractor to contact and assess the ability of certified MBEs and WBEs located outside of the region in which the grant agreement scope of work is to be performed to participate on the project;
- Whether the subgrantee/contractor provided relevant plans, specifications or terms and conditions to MBEs and WBEs sufficiently in advance to enable them to prepare an informed response to a contractor request for participation as a subcontractor or supplier;
- The terms and conditions of any subcontract or provision of suppliers offered to certified MBEs and WBEs and a comparison of such terms and conditions with those offered in the ordinary course of the subgrantee/contractor's business and to other subcontractors or suppliers of the subgrantee or contractor; and
- Any other information that is relevant or appropriate to determining whether the subgrantee/contractor has demonstrated a good faith effort.

Req. 14. Cost and Barrier Reduction

2.10.1 Text Box: Identify steps that the Eligible Entity will take to reduce costs and barriers to deployment. Responses may include but not be limited to the following:

- a. Promoting the use of existing infrastructure;**
- b. Promoting and adopting dig-once policies;**
- c. Streamlining permitting processes;**
- d. Streamlining cost-effective access to poles, conduits, easements; and**
- e. Streamlining rights of way, including the imposition of reasonable access requirements.**

The Puerto Rico Broadband Program's proposal for use of BEAD funds is focused on reducing costs and barriers to deployment throughout Puerto Rico. Priorities for the Puerto Rico Broadband Program include:

- Promoting and adopting dig-once regulations;
- Ensuring clear, consistent, and expeditious processes for utility pole and conduit access;
- Engaging small and medium enterprises; and
- Collaborating with relevant stakeholders.

Investing in a carrier-neutral, island-wide conduit system will allow multiple users the opportunity to provide a variety of services. Prospective tenants without the capital to make last-mile connections on their own will be supported by conduit infrastructure, providing the access points needed to deploy reliable high-speed internet in areas previously unconnected. With the conduit system, tenants can provide seamless broadband service throughout Puerto Rico in a cost-effective, collaborative system, eliminating previous barriers including high costs of infrastructure and time-consuming right-of-way processes.

The Puerto Rico Broadband Program will promote cooperative efforts for access to new routes and ensure professional, responsive management of the open conduit. The conduit system will be designed using a "dig-once" policy, with additional capacity built into the system for future expansion. Last-mile, middle-mile, and backhaul services will be made more available and more resilient through use of this system.

The Government has taken several steps since 2019 to expedite the permitting process for pole and conduit installations in public rights-of-way, significant delays can still occur when projects involve municipalities⁷², including the creation of the Single Permit⁷³. However, when a project such as the proposed conduit system spans multiple Municipalities, the permitting process of each Municipality applies, in light of Municipal regulations issued pursuant to the Puerto Rico Municipal Code of 2020⁷⁴, which could slow down the completion of the permitting process. Notwithstanding the foregoing, the Puerto Rico Broadband Program will continue to work with the Legislative Assembly of Puerto Rico, relevant Government agencies, Municipal governments, and other key stakeholders to tackle the hurdles that may arise for completing the permitting process. Moreover, as indicated in Figure 5 of Requirement 4, all the Municipalities are

⁷² For more information on pole and conduit access in Puerto Rico, see the Five-Year Action Plan

⁷³ Act No. 161-2009, as amended (known as the 'Puerto Rico Permit Process Reform Act'.

⁷⁴ Act No. 107-2020, as amended.

represented in the Broadband Advisory Council, either through the PR Majors Association and/or the PR Majors Federation, and they continue to help develop procedures in regular convenings.

Req. 15. Climate Assessment

2.11.1 Text Box: Describe the Eligible Entity's assessment of climate threats and proposed mitigation methods. If an Eligible Entity chooses to reference reports conducted within the past five years to meet this requirement, it may attach this report and must provide a crosswalk narrative, with reference to page numbers, to demonstrate that the report meets the five requirements below. If the report does not specifically address broadband infrastructure, provide additional narrative to address how the report relates to broadband infrastructure. At a minimum, this response must clearly do each of the following, as outlined on pages 62 – 63 of the BEAD NOFO:

- a. Identify the geographic areas that should be subject to an initial hazard screening for current and projected future weather and climate-related risks and the time scales for performing such screenings;**

As mentioned in Requirement 2 above, during recent years, Puerto Rico has faced significant challenges dealing with several major natural catastrophes (i.e., hurricanes and earthquakes) which have changed the way the United States handled disaster recovery and restoration efforts. Additionally, prior to these weather events, the Government's ability to execute on any proposed mitigation strategies administratively and operationally was limited due to certain pre-existing socio-economic conditions⁷⁵ and the start of Covid 19 Pandemic.

As a result of these events, the Puerto Rican government has taken additional steps in to ensure that missteps from past events were avoided and incorporated lessons learned into the update of Puerto Rico State Natural Hazard Mitigation Plan (PRSNHMP). The PRSNHMP is a comprehensive plan that outlines areas of concern across all natural disasters that could potentially impact Puerto Rico on an annual basis. The plan itself is a helpful guide for commonwealth and municipal leaders for evaluating and planning out how to prepare for natural disasters, as well as laying the groundwork for post-event restoration and recovery.

The Puerto Rico Broadband Program has reviewed the PRSNHMP to highlight areas that are most susceptible to natural disasters and other high-risk events. According to the PRSNHMP, nearly sixty-two percent (62%) of Puerto Rico's population lives near coastal areas. These areas are the most susceptible to hazards such as hurricanes and coastal and riverine flooding. Residents that reside in the central interior, prone to natural disasters such as flooding, high winds from hurricanes and landslides, also experience some of the highest social risk factors in the United States. These risk factors limit residents' ability to seek assistance when unforeseen events occur in these impacted communities.

Using the U.S. Census Bureau's Community Resilience Estimates (CRE) to identify other areas at risk, nearly forty-six point one percent (46.1%) of Puerto Rico's population is estimated to have

⁷⁵ By 2016, Puerto Rico was in the midst of an irreconcilable liquidity, fiscal, and economic crisis: (i) the Government was being crushed under the weight of public debt larger than its GNP; (ii) it started to default on its debt obligations, and (iii) it has lost access to external financing. In response to this, on 2016, President Obama signed into law the Puerto Rico Economic Oversight, Management, and Economic Stability Act (PROMESA), Pub L. 114-187, which provided a bankruptcy-like remedy to the Puerto Rican crisis, and eventually lead to the confirmation of the Plan of Adjustment for the Government on January 18, 2022, implemented through Act No. 53-2021, successfully restructuring ~\$35,000 in Government credits.

three (3) or more risks factors related to social vulnerability more than double the estimated share, twenty one point six percent (21.6%), of the stateside U.S. population in 2019.⁷⁶ Out of Puerto Rico's seventy eight (78) Municipalities, seven (7) Municipalities have over fifty-five percent (55%) of their residents at risk, including the following Municipalities: Maricao, with sixty five percent (65.0%), Lajas with sixty three point three percent (63.3%), Guánica with sixty two point three percent (62.3%), Sabana Grande with fifty seven percent (57.0%), Vieques with fifty seven point four percent (57.4%), Ciales with fifty six point four percent (56.4%), and Patillas with fifty five point seven percent (55.7%).⁷⁷ A majority of these Municipalities (other than Vieques and Patillas) are located in the southwestern and central areas of Puerto Rico, with difficult terrain and sparse infrastructure.

To ensure that these areas are addressed, the Puerto Rico Broadband Program will be using information pulled from the most recent PRSNHMP updated every five (5) years, the U.S. Census Bureau, and other federal and local sources when planning out infrastructure projects for BEAD and other funding sources.

2.11.1 Text Box (cont.): b. Characterize which projected weather and climate hazards may be most important to account for and respond to in these areas and over the relevant time horizons;

By 2050, climate models for Puerto Rico suggest a continuation of the trends experienced over the last decade. Longer dry periods of between twenty and forty percent (20-40%) less precipitation, interrupted by more intense storms that will produce a higher propensity for infrastructure damage and water scarcity. Average temperatures in Puerto Rico today are two point three (2.3) degrees Fahrenheit higher since 1920.⁷⁸ Looking forward to that same time, Puerto Rico projects to warm one point eight (1.8) degrees Fahrenheit under a current emissions scenario and as much as seven point two (7.2) degrees Fahrenheit under a higher emissions scenario. These higher temperatures directly impact the environment and cause critical ecological stress to Puerto Rico's forests and coastal areas.

Warmer global temperatures also lead to warmer ocean temperatures, which increase storm intensity. Both Hurricane Maria and Irma were some of the costliest natural disasters on record and are a sheer reminder of the threats posed against Puerto Rico. With the increase in frequency and intensity of these storms, existing and future infrastructure is at significant risk. Infrastructure will need to be hardened to withstand the stress of these storms.

⁷⁶US Census Bureau, "How Socially Vulnerable Is Puerto Rico to Disasters?" June 7, 2023, [https://www.census.gov/library/stories/2023/06/how-socially-vulnerable-is-puerto-rico-t-o-disasters.html#:~:text=All%20municipios%20in%20Puerto%20Rico,0%20risk%20factors%20\(14.7%25\)](https://www.census.gov/library/stories/2023/06/how-socially-vulnerable-is-puerto-rico-t-o-disasters.html#:~:text=All%20municipios%20in%20Puerto%20Rico,0%20risk%20factors%20(14.7%25).).

⁷⁷ US Census Bureau, "Community Resilience Estimates for Puerto Rico Viewer." <https://mtgis-portal.geo.census.gov/arcgis/apps/experiencebuilder/experience/?id=e851575739ca4b4281037d92cc62cbd4>

⁷⁸ US Global Change Research Program, NOAA Fourth National Climate Assessment Chapter 20 – Caribbean [https://nca2018.globalchange.gov/chapter/20/U.S.-Caribbean-Fourth-National-Climate-Assessment\(globalchange.gov\)](https://nca2018.globalchange.gov/chapter/20/U.S.-Caribbean-Fourth-National-Climate-Assessment(globalchange.gov))

In addition to the threat of wind damage, stronger storms increase the risk of flooding. Coastal flooding can occur during and after a storm event, while flash flooding can occur from heavy rainfall in a short period of time. Flash flooding can happen in coastal areas but also in Puerto Rico's deep mountain valleys, where water can rush down the steep mountain sides and into rivers and streams that can quickly fill up and impact towns and cities. These coastal and mountain communities are particularly high risk due to the remoteness, and limited infrastructure has only exacerbated the problems in these areas.

Outside of rain and wind events, Puerto Rico resides in a seismically active area along the Caribbean and North American tectonic plate. Over the past one hundred (100) years, Puerto Rico has experienced several large earthquakes and aftershocks above seven point zero (7.0) on the Richter Scale.⁷⁹ When these powerful earthquakes occur close to population centers, they can cause extensive infrastructure damage and loss of life. The southwest portion of Puerto Rico has seen the most seismic activity in recent years, including the six-point four (6.4) magnitude earthquake in early 2020. This area is an area of concern and will be actively monitored, as it is also prone to landslides and tsunamis,

Landslides significantly impact rural and at-risk communities in Puerto Rico's interior. With the increase of heavier rainfall from tropical systems and stronger seasonal rains, these communities are under a significant threat of landslides as the ground becomes so saturated with moisture that plants and other exposed debris begin to move due to the ground not being able to support any more water. Two (2) factors that drive landslides are high soil moisture content and steep slopes. After Hurricane Maria, the University of Puerto Rico Mayaguez Campus and the United States Geological Survey (USGS) published a study that evaluated physical landslide susceptibility by area across Puerto Rico. Their study identified several areas that fell into the "Extremely High", category. The Municipality of Maricao, led the study with ninety-four percent (94%); the Municipality of Jayuya followed, with seventy-five percent (75%); followed by the Municipality of Adjuntas, with sixty-eight percent (68%), and the Municipality of Las Marías, with sixty-seven (67%) of their total land area.⁸⁰ The study also looked at where the most landslides occurred by Municipalities. The top five (5) Municipalities where landslides occurred were Utuado, Adjuntas, Ponce, Orocovis and Ciales, with the leading cause high soil moisture content.⁸¹

Climate hazards are a looming threat to Puerto Rico, and Puerto Rico's residents and infrastructure are feeling its early impacts. The Puerto Rico Broadband Program will be working directly with all the resources available and stakeholders during planning to ensure that the infrastructure installed is hardened and resilient to withstand climate hazards.

2.11.1 Text Box (cont.): c. Characterize any weather and climate risks to new infrastructure deployed using BEAD Program funds for the 20 years following deployment;

⁷⁹ United States Geological Survey, "Caribbean Tsunami and Earthquake Hazards Studies," August 21, 2018, <https://www.usgs.gov/centers/whcmssc/science/caribbean-tsunami-and-earthquake-hazards-studies>.

⁸⁰ Puerto Rico State Natural Hazard Mitigation Plan, August 2021, page 42, https://recovery.pr.gov/documents/2021%20PR%20State%20Hazard%20Mitigation%20Plan_Aug2021.pdf.

⁸¹ Puerto Rico State Natural Hazard Mitigation Plan, pages 88-92.

The Puerto Rico Broadband Program is undertaking the rollout of a large, island-wide underground open access conduit system. Creating a network at this scale will present many challenges, including dealing with natural hazards on an annual basis and contending with very complex socio-economic and political environments that will impact network. The Puerto Rico Broadband Program is conducting extensive planning to ensure that this program is successful and long-lasting.

With Puerto Rico's high risk for stronger hurricanes and tropical weather systems, the infrastructure will need to be hardened and buried when possible. This process will need to account for rugged mountainous interior, dense vegetation, and coastal plains. While building infrastructure in seismic areas, the Puerto Rico Broadband Program will take steps to ensure the infrastructure meets or exceeds all federal and commonwealth regulations.

Conduit routes will need to be constructed through areas that are highly susceptible to landslides and other risks. Puerto Rico's topography, especially areas in the interior, will inform the builds. Whenever possible, the Puerto Rico Broadband Program will refer to any local hazard mitigation plans to identify potential problem areas in relevant jurisdictions.

Puerto Rico is home to diverse and unique ecosystems, including forests, wetlands, tropical rainforests, and coastal areas. As the Puerto Rico Broadband Program plans infrastructure, careful development will be a priority to mitigate impacts on these ecosystems.

Development of the open access conduit network will coincide with road and electrical grid improvements. In 2019, the American Society of Civil Engineers assigned Puerto Rico's infrastructure an overall GPA of D-.⁸² Since 2019, there have been concerted efforts to improve Puerto Rico's infrastructure. With assistance from the Federal Government and other sources, significant projects have begun to improve roads and the electrical grid, improvements that will further support resident access to resources. Coordination with road and electrical grid construction, including shared solutions to material shortages and supply chain issues, will be critical for efficient timing and location of projects and successful operation of an underground conduit system.

2.11.1 Text Box (cont.): d. Identify how the proposed plan will avoid and/or mitigate weather and climate risks identified; and

The Puerto Rico Broadband Program is committed to proactively preventing infrastructure failures of the past. While overseeing the development of the island-wide open access conduit system, the Puerto Rico Broadband Program will focus on key areas to ensure that a resilient and robust network will be able to withstand any climate or weather-related event throughout the lifespan of the network.

Resiliency Strategies

The Puerto Rico Broadband Program will implement resilience strategies during construction of the open access conduit system. The subgrantee will be required to conduct more in-depth site surveys when building in sensitive areas and to work directly with community leaders and local stakeholders when building in areas with limited infrastructure. Non-traditional construction

⁸² American Society of Civil Engineers, "ASCE Puerto Rico Report Card 2019," https://www.infrastructurereportcard.org/wp-content/uploads/2019/11/Brochure_PR2019_digital.pdf.

methods, such as micro trenching, and high-density conduit systems will be considered to minimize the impact of building in sensitive areas. To optimize costs, the subgrantee may partner with other state and local agencies to share costs under a "One-Dig" policy.

Fiber Optic Preference:

The Puerto Rico Broadband Program prefers the deployment of fiber optic cables within the open-access system. Fiber optics offer several advantages, listed below.

- Lower environmental impact
- Extended data transmissions
- Lightweight and durable cables
- Future proof cables with a high ceiling for growth
- High data transfers
- Reduced latency
- High capacity
- Less prone to failure from water

High Density Conduit System:

This system will be designed as a high-density conduit system, to allow for multiple providers to operate in each section. Wherever possible, this system will be buried to protect and harden the conduit from any outside elements and hazards. High-capacity systems allow for multiple providers to extend their existing networks, enhancing competition and lowering costs to build and deploy infrastructure in areas that need services.

Diversity & Redundancy Strategies:

The Puerto Rico Broadband Program will design multiple routes across Puerto Rico to ensure redundancy, minimizing service outages. All proposed colocations facilities will be required to have redundant power systems and battery backup support to prevent any major system outages for extended periods of time. Every site will have redundancy requirements, including a minimum of two physical pathways going into the site to mitigate isolations in the event of an outage. All facilities will be strategically selected to factor in potential natural hazards, soil and land sustainability and impact to the environment, and growth potential of the facility for network user access.

Community Strategies

Community engagement and support from local stakeholders is essential for ensuring success in the deployment of this network. Having strong ties in the community will help to identify community needs and priorities, as well as address concerns and potential barriers to deployment. This system's top priority is deploying infrastructure in communities that are the most at risk within Puerto Rico. By working closely with local communities, service providers can build stronger, more resilient networks that are better equipped to withstand the challenges of the future.

Recovery Strategies for Weather and Climate Events:

Knowing that there is high likelihood that extreme events will occur during the lifespan of the network, the Puerto Rico Broadband Program will require the subgrantee to prepare through the following steps:

- Develop an evacuation plan for operations and engineering teams;
- Have an emergency team in place to take charge and make decisions pre & post-storm;
- Take steps to secure the job site. Document and inventory available material resources;
- Have a detailed risk assessment sheet;
- Evaluate damage and restore the site to pre-storm conditions after storms; and
- Consult the PRSNHMP and Local Hazard Mitigation plans to gain insights into existing emergency protocols, identify problem areas, and any additional concerns raised by local and state agencies.

Adopting these measures will ensure the Puerto Rico Broadband Program's open-access conduit system is resilient, adaptable, and well prepared for the challenges that may arise during the network's lifespan.

2.11.1 Text Box (cont.): e. Describe plans for periodically repeating this process over the life of the Program to ensure that evolving risks are understood, characterized, and addressed, and that the most up-to-date tools and information resources are utilized.

The Puerto Rico Broadband Program will work with federal, local, and community stakeholders, including non-profits, internet service providers, and private enterprises, to implement strategies recommended in the PRSNHMP and raise the profile of the document. The PRSNHMP is updated every five years, as mandated by FEMA, but is subject to any changes given Puerto Rico's recent history. In addition to the hazard mitigation plan, the Puerto Rico Broadband Program will use tools and resources from the Puerto Rico Planning Board, FEMA, USDA, and the U.S. Census Bureau to evaluate programs for the most up-to-date information for risk assessments.

Req. 16. Low-Cost Broadband Service Option

2.12.1 Text Box: Describe the low-cost broadband service option(s) that must be offered by subgrantees as selected by the Eligible Entity, including why the outlined option(s) best services the needs of residents within the Eligible Entity's jurisdiction. At a minimum, this response must include a definition of low-cost broadband service option that clearly addresses the following, as outlined on page 67 of the BEAD NOFO:

- a. All recurring charges to the subscriber, as well as any non-recurring costs or fees to the subscriber (e.g., service initiation costs);
- b. The plan's basic service characteristics (download and upload speeds, latency, any limits on usage or availability, and any material network management practices);
- c. Whether a subscriber may use any Affordable Connectivity Benefit subsidy toward the plan's rate; and
- d. Any provisions regarding the subscriber's ability to upgrade to any new low-cost service plans offering more advantageous technical specifications.

Puerto Rico's existing commitments for universal service have shaped the Puerto Rico Broadband Program's approach to the low-cost broadband service option requirement in BEAD implementation. If the Puerto Rico Broadband Program were implementing last-mile deployment, the Puerto Rico Broadband Program would utilize the model's low-cost alternative. As the Puerto Rico Broadband Program will not be making subgrants for broadband service with BEAD funds, a low-cost broadband service option will not be required of the BEAD conduit subgrantee. Successful development and tenant use of the proposed conduit system will support low-cost broadband service for residents as the open access nature of the system provides more opportunities for small and medium enterprises to compete.

Uniendo Program awardees are held to charge caps by the FCC.⁸³ As noted in the program procedures, recipients may offer a variety of broadband service offerings as long as they offer at least one (1) standalone voice plan and one (1) service plan that provides broadband at the relevant performance tier and latency requirements, and these plans must be offered at rates that are reasonably comparable to rates offered in urban areas. For voice service, a support recipient will be required to certify annually that the pricing of its service is no more than the applicable reasonably comparable rate benchmark that the FCC releases each year. For broadband services, a support recipient will be required to certify that the pricing of a service that meets the required performance tier and latency performance requirements is no more than the applicable reasonably comparable rate benchmark, or that it is no more than the non-promotional price charged for a comparable fixed wireline broadband service in the state or U.S. territory where the eligible telecommunication carrier (ETC) receives support.

The Puerto Rico Broadband Program continues to provide additional low-cost measures in programs funded through the PRBIF and other sources. Through ongoing Affordable Connectivity Program outreach efforts, the Puerto Rico Broadband Program continues to connect eligible

⁸³ Federal Communications Commission, "The Uniendo a Puerto Rico Fund and the Connect USVI Fund, Connect America Fund, ETC Annual Reports and Certifications," March 20, 2020, <https://www.federalregister.gov/documents/2020/03/20/2020-05508/the-uniendo-a-puerto-rico-fund-and-the-connect-usvi-fund-connect-america-fund-etc-annual-reports-and>.

residents with subsidies for their internet service. The Puerto Rico Broadband Program is finalizing the initial round and beginning the second round of the free public Wi-Fi program through PRBIF, providing residents access to free Wi-Fi in each municipality for at least ten (10) years. The Puerto Rico Broadband Program will further prioritize long-term affordability in PRBIF-funded resilient infrastructure projects.

Req. 17. Use of 20 Percent of Funding

2.14.1 Text Box: Describe the Eligible Entity's planned use of any funds being requested, which must address the following:

- a. If the Eligible Entity does not wish to request funds during the Initial Proposal round, it must indicate no funding requested and provide the rationale for not requesting funds.**
- b. If the Eligible Entity is requesting less than or equal to 20 percent of funding allocation during the Initial Proposal round, it must detail the amount of funding requested for use upon approval of the Initial Proposal, the intended use of funds, and how the proposed use of funds achieves the statutory objective of serving all unserved and underserved locations.**
- c. If the Eligible Entity is requesting more than 20 percent (up to 100 percent) of funding allocation during the Initial Proposal round, it must detail the amount of funding requested for use upon approval of the Initial Proposal, the intended use of funds, how the proposed use of funds achieves the statutory objective of serving all unserved and underserved locations and provide rationale for requesting funds greater than 20 percent of the funding allocation.**

The PRBP requests 100% of funding be made available (obligated) for its Initial Proposal, equal to \$334,614,151.70, of which \$5 million was already awarded from the planning grant. The PRBP requests the full allocation to best achieve affordable, reliable, high-speed internet for all and to achieve universal internet service for all Puerto Rico residents through a competitive and fair BEAD process. The program is also requesting access to 20% of the total funding allocation prior to the submission to NTIA of the Final Proposal, a total amount of funds equal to \$66,922,830.00, for the following efforts:

1. Staff Capacity and Administration: \$151,200.00
2. Affordable Device Program: \$8,000,000.00
3. Digital Navigator and Literacy Program: \$30,000,000.00
4. Online Government Services: \$20,000,000.00
5. Workforce Development: \$8,771,630.00

The total amount of these efforts adds up to the 20% percent of funds the PRBP requested above.

* Please refer to the budget narrative for a detailed description of these programs.

02.14.01 Initial Proposal Funding Request Amount

Enter the amount of the Initial Proposal Funding Request. If not requesting Initial Proposal funds, enter '\$0.00.'

\$32,961,415,1.7

02.14.02 20 Percent of Funds Requirements

Certify that the Eligible Entity will adhere to BEAD Program requirements regarding Initial Proposal funds usage. If the Eligible Entity is not requesting funds in the Initial Proposal round and will not submit the Initial Proposal Funding Request, note "Not applicable."

Existing commitments for deployment of last-mile service to all broadband serviceable locations in Puerto Rico provide the Puerto Rico Broadband Program the unique opportunity to begin implementation of the non-deployment and contractor activities described in this proposal. As Claro and Liberty are mandated to build and deliver universal service by 2028, the statutory requirement of the BEAD program to deploy broadband service to all unserved and underserved locations is met through these existing commitments.

As such, the Puerto Rico Broadband Program requests access to one hundred percent (100%) of its allocation upon approval of this Initial Proposal: \$329,614,152, the full allocation minus \$5,000,000 in initial planning funds already received. Access to the full allocation upon approval of this proposal will allow the Puerto Rico Broadband Program the funding needed to provide the public benefits that will support residents' access to broadband service and digital literacy.

Installation of hardened and resilient infrastructure in Puerto Rico begins with development of the open access conduit system described in Requirement 9. Access to the full allocation will allow the Puerto Rico Broadband Program to immediately implement the route selection and competitive bidding procedures described in this proposal. Residents in every area of Puerto Rico, especially those in historically underserved rural areas left out of major development projects, must have access points that are structurally reinforced to withstand unexpected events. Swift and efficient construction of this conduit system will allow internet service providers and other critical tenants to deploy needed middle-mile, backhaul, and last-mile services to residents and community anchor institutions throughout Puerto Rico in a new resilient, sustainable system. Additionally, full allocation ensures project continuity throughout the BEAD program lifecycle and gives Puerto Rico greater ability to manage the program budget.

Access to the full allocation will further support the Puerto Rico Broadband Program's efforts to close the digital divide. As noted in the Five-Year Action Plan, Puerto Ricans face substantial obstacles to connection, including device needs and digital literacy skills gaps. Receipt of the full allocation as quickly as possible will allow the Puerto Rico Broadband Program to launch non-

deployment programs and government supports simultaneously, allowing construction of the island-wide conduit system to coincide with increased device and skills access, workforce development initiatives, online government services support, and staff and outreach capacity. Subgrantee selection with access to the full allocation will allow more accurate and efficient use of funds for non-deployment purposes and will ensure residents are able to participate in digital equity programming well before the conduit system's completion by 2028.

Finally, while the Puerto Rico Broadband Program has and will continue to reduce costs and barriers to deployment, anticipated construction delays in permitting, administrative approvals, and environmental assessments may impact the timeline for the conduit system. Access to the full BEAD allocation will allow the Puerto Rico Broadband Program to make progress toward all non-deployment goals throughout construction of the conduit system. The Government of Puerto Rico appreciates the opportunity to appeal for one hundred percent (100%) funding during the Initial Proposal round.

The Puerto Rico Broadband Program has developed a detailed program budget to match the projects in this proposal.

Req. 18. Eligible Entity Regulatory Approach

2.15.1 Text Box

- a. **Disclose whether the Eligible Entity will waive all laws of the Eligible Entity concerning broadband, utility services, or similar subjects, whether they predate or postdate enactment of the Infrastructure Act that either (a) preclude certain public sector providers from participation in the subgrant competition or (b) impose specific requirements on public sector entities, such as limitations on the sources of financing, the required imputation of costs not actually incurred by the public sector entity, or restrictions on the service a public sector entity can offer.**
- b. **If the Eligible Entity will not waive all such laws for BEAD Program project selection purposes, identify those that it will not waive (using the Excel attachment) and their date of enactment and describe how they will be applied in connection with the competition for subgrants. If there are no applicable laws, note such.**

The Puerto Rican telecommunications industry is one that is driven by supply and demand. Although there are several limitations to avoid Government owned entities competing with private entities in said industry, such as those levied in Act No. 80-2017,⁸⁴ there are no local regulations for rates, nor limitations that restrict competition.

Although Puerto Rico currently has no specific laws that preclude certain public sector providers from participating in the subgrant competition *per se*, there are certain laws and/or regulations that impose specific requirements on said public entities for those purposes, such as the Local Procurement Standards defined in Requirement 9.

The Government will not waive the above-mentioned laws/regulations for BEAD Program project selection, as they will be applied exactly as mandated.

⁸⁴ Known as the 'Law for Fair Competition in Telecommunications, Information and Pay Television Services in Puerto Rico', whose main goal is to regulate the participation of Government entities and their subsidiaries in the telecommunications services offering market.

Req. 19. Certification of Compliance with BEAD Requirements

2.16.2 Text Box: Describe subgrantee accountability procedures, including how the Eligible Entity will, at a minimum, employ the following practices outlined on page 51 of the BEAD NOFO:

- a. Distribution of funding to subgrantees for, at a minimum, all deployment projects on a reimbursable basis (which would allow the Eligible Entity to withhold funds if the subgrantee fails to take the actions the funds are meant to subsidize);**

The Puerto Rico Broadband Program will comply with all applicable requirements of the BEAD Program, including the reporting requirements.

The Puerto Rico Broadband Program will prescribe in its published program procedures a process by which subgrantees shall be reimbursed for actual eligible program expenses up to a maximum project cost identified in the Puerto Rico Broadband Program's award to that subgrantee.

In addition, the Puerto Rico Broadband Program will prepare and distribute to subgrantees a post-award guidance document by which it will detail steps in the post-award process for ensuring subgrantee accountability.

For the conduit subgrantee, following the execution of the subgrantee's agreement with the Puerto Rico Broadband Program, and following submittal of the conduit subgrantee's required documentation in order to obtain a notice to proceed with pre-construction activities from the Puerto Rico Broadband Program, the Puerto Rico Broadband Program will conduct project meetings to review the requirements needed for the deployment subgrantee to obtain a Notice to Proceed with Construction Activities.

Following the execution of each non-deployment subgrantee's grant agreement with the Puerto Rico Broadband Program, and submittal of any required documentation related to such subgrantee's project, the Puerto Rico Broadband Program will review all documentation and provide the non-deployment subgrantee with a notice to proceed with project activities.

Notice to Proceed with Pre-Construction/Design Activities and Initial Budget Breakdown
Prior to the conduit subgrantee making any eligible expenditures, the conduit subgrantee must obtain a Notice to Proceed with pre-construction activities from the Puerto Rico Broadband Program. The Puerto Rico Broadband Program shall require the deployment subgrantee to provide, as part of its grant agreement, required documentation uploaded within the Puerto Rico Broadband Program's online grant administration portal. Included in this documentation are items such as the signed grant agreement with the Puerto Rico Broadband Program, subgrantee debarment review form, proof of establishment of a separate project bank account by the subgrantee, a completed environmental law applicability questionnaire, information related to the conduit subgrantee's financial management system and record retention policies as applicable, among other information. Additionally, the required documentation shall include the subgrantee's certification of review of potentially applicable laws, evidence of consultation with any historic preservation office and required clearances.

Once the Puerto Rico Broadband Program issues a notice to proceed with pre-construction activities, the conduit subgrantee may then begin pre-construction activities, which involves

expenditures on non-construction activities such as engineering functions, permit applications/right-of-way practices, and associated logistical efforts.

Engineered Design Requirements

Following the issuance by the Puerto Rico Broadband Program of a notice to proceed with pre-construction (non-construction) activities, but prior to requesting an Award contract with construction activities, the Puerto Rico Broadband Program will require its conduit subgrantee to submit a comprehensive and full project plan to the Puerto Rico Broadband Program. The Puerto Rico Broadband Program will have assigned its Engineering Contractor to supply Construction Plans, along with high-level design and engineering plans, which the conduit subgrantee will use as the basis for its construction and project plans. All changes and modifications will be coordinated with the Puerto Rico Broadband Program's engineering partner before implementing any changes. The Puerto Rico Broadband Program will work with the engineering firm and the grant administrator that will oversee the conduit subgrantee's implementation of the engineered design and any approved modifications to specifications. The Puerto Rico Broadband Program will also require the conduit subgrantee to provide copies of any DOT permits, any other applicable permits, clearances, applicable Dig Once Notifications, pole attachment agreements, and applicable bonds as well. Should the conduit subgrantee's project occur on private property or property outside of the ROW, the Puerto Rico Broadband Program will require the subgrantee to provide evidence of any required easements or clearances as well. For projects requiring underlying municipality or Federal agency approvals, the Puerto Rico Broadband Program will require the conduit subgrantee to submit evidence of such documentation.

Submitting Invoices

To ensure accurate and organized processing of invoices, the Puerto Rico Broadband Program requires use of equipment and materials in a project prior to subgrantee submitting invoices for such items.

In the grant disbursement request, the Puerto Rico Broadband Program will require from subgrantees submission of proof of expenditures on eligible costs for review prior to reimbursement. If the Puerto Rico Broadband Program determines, based on audits, reviews, or monitoring of the grant agreement with the subgrantee that any amounts or prior payments made are not allowable under the terms of the grant agreement with the Puerto Rico Broadband Program, any applicable Federal or State Laws, program regulations, public policy, or administrative requirements, the subgrantee's invoice shall be subject to reduction by the Puerto Rico Broadband Program.

Generally, to be eligible for grant disbursements, subgrantees:

- Must comply with post-award monitoring and reporting requirements,
- Are responsible for active technical, financial, and project management of the awarded project, and
- Must cooperate with technical and financial monitoring and review.

Compliance Reporting

Additionally, as part of subgrantee accountability, the Puerto Rico Broadband Program will place reporting requirements upon subgrantees upon execution of the grant agreement between a subgrantee and the Puerto Rico Broadband Program. Included among these requirements are the BEAD NOFO's specified subgrantee reporting requirements.⁸⁵ The Puerto Rico Broadband Program will require subgrantees to provide quarterly (or whichever other frequency that the Puerto Rico Broadband Program deems appropriate) reports to ensure that both the Puerto Rico Broadband Program and subgrantees meet all reporting requirements as prescribed in NTIA/Commerce BEAD program guidelines. As with other Federal broadband grant reporting administered by the Puerto Rico Broadband Program to ensure subrecipient accountability, the Puerto Rico Broadband Program shall build reporting forms conforming to BEAD program requirements and provide compliance guidance to subgrantees regarding requirements and methods of submittal to the Puerto Rico Broadband Program. Included in such compliance reporting shall be guidance related to required, regular labor reporting for projects over \$5,000,000 million in expected total costs as detailed in the BEAD NOFO. The information that will be required as part of such reporting is included in this Initial Proposal Volume 2, in "Requirement 11. Labor Standards and Protection."

Field Review

The Puerto Rico Broadband Program and its partners will conduct field reviews, through desktop reviews and site visits, at various phases of the conduit subgrantee project. This process ensures that the new BEAD-funded constructed network is compliant with construction/engineering standards and meets the Puerto Rico Broadband Program's conduit system requirements and Dig Once policy. This will be accomplished through regular progress meetings with the conduit subgrantee and shall involve the submission by the conduit subgrantee to the Puerto Rico Broadband Program of as-builts documentation, and report of miles completed, addresses passed, and conduit capacity. Further, when projects approach fifty percent (50%) completion, the Puerto Rico Broadband Program's project manager will reconcile invoices with as-builts to confirm project alignment with approved construction plans and spending estimates. **The Puerto Rico Broadband Program's grant administrator will oversee the conduit subgrantee's adherence to the engineered design specifications.** From this point until project close-out, desktop reviews and site visits will be scheduled between the Puerto Rico Broadband Program and the conduit subgrantee. The field review process will include an ongoing high-level verification that the design and the actual construction of the conduit network are compliant with grant requirements and in accordance with industry best practices.

The Puerto Rico Broadband Program's technical reviewers will verify the consistency of the plant observed with the project's scope as defined in the deployment subgrantee's contracting materials with the Puerto Rico Broadband Program and note general quality observations.

In conjunction with the field review described above, the Puerto Rico Broadband Program's field validation team, will prepare a mid-construction field review report which shall include the outputs from the field review, photographs, and identify any discrepancies or issues. Following this, the conduit subgrantee shall have a prescribed period in which to cure or provide proof of

⁸⁵ See BEAD NOFO pgs. 89-92.

corrective actions taken to remedy any discrepancies or issues and provide a revised report to the Puerto Rico Broadband Program for review.

Upon a project's completion, the Puerto Rico Broadband Program will require the conduit subgrantee to submit a closeout package with required documentation for review and approval of the final ten percent (10%) of the grant retained which the Puerto Rico Broadband Program will release following approval of all closeout documentation and final field reviews. Included in the closeout package documentation shall be all as-built files and any other applicable tests results not already provided by the subgrantee. A field review will be conducted for a sample of the completed network at this point and a field review report (construction complete) shall be prepared by the field team, similar to the field review report (mid-construction) described above. As with the mid-construction field review, the conduit subgrantee shall have a prescribed amount of time to remedy discrepancies or issues identified in the construction complete field review report.

2.16.2 Text Box (cont.): b. The inclusion of clawback provisions (i.e., provisions allowing recoupment of funds previously disbursed) in agreements between the Eligible Entity and any subgrantee

In general, the Puerto Rico Broadband Program will include provisions in its grant agreement with subgrantees stating that the Puerto Rico Broadband Program may deduct amounts or withhold payments invoiced by the subgrantee if the subgrantee fails to comply with any requirements of the grant agreement. Further, the Puerto Rico Broadband Program will have provisions in the agreement stating that funds withheld due to unsatisfactory project performance or failure to comply with the terms and conditions of the grant agreement may be restored upon the subgrantee's satisfactory remedy of the condition that caused the withholding. Lastly, in general the Puerto Rico Broadband Program's practice will be to retain ten percent (10%) of any grant award until project completion, including approval of all closeout documents and reporting requirements.

The Puerto Rico Broadband Program, in its grant agreements with subgrantees, will reserve the right to disallow costs and recover funds disbursed on the basis of audit or review, even following closeout of the subgrantee's project. Such provisions will specify that subgrantees shall be obligated to return any funds due as a result of later refunds, corrections, or other transactions. Additionally, the Puerto Rico Broadband Program's grant agreements with subgrantees will have provisions relating to subgrantee performance measures, with language stating that subgrantee achievement and compliance with performance measures will be evaluated based upon project plan information submitted with the subgrantee's application. The Puerto Rico Broadband Program's objective is that the project plan and performance measures established be used by the Puerto Rico Broadband Program to evaluate performance under the grant agreement. This will be accomplished during regularly scheduled monitoring visits and reviews by the Puerto Rico Broadband Program and its partners.

In its agreements with subgrantees, the Puerto Rico Broadband Program will further specify that failure by subgrantees to substantially meet performance measures may result in suspension of reimbursement payments, termination of the grant agreement, and/or prohibit the subgrantee

from being eligible to apply for future allocations until the identified shortcomings are resolved. Included in these provisions the Puerto Rico Broadband Program will outline the process if a subgrantee fails to comply with its project plan. In this process, the Puerto Rico Broadband Program will provide notice and an opportunity for subgrantees to cure any failures or deficiencies within thirty (30) days or such other reasonable time as may be specified in the notice. If the subgrantee fails to cure during the designated period, the Puerto Rico Broadband Program may avail itself of one (1) or more of the following actions, including but not limited to:

- requiring additional project monitoring to ensure compliance with the subgrantee's project plan,
- requiring the subgrantee to obtain technical or management assistance to ensure compliance with the project plan, and
- reducing the program funds to be disbursed under the grant agreement in an amount not to exceed the difference between the full amount of the subgrantee award and the total amount for which the subgrantee has submitted a reimbursement request that is consistent with the progress made in complying with the project plan as of the date of the expiration of the cure period.

Lastly, the Puerto Rico Broadband Program shall communicate to subgrantees that it reserves the right to recapture funds remaining due to cost underruns.

2.16.2 Text Box (cont.): c. Timely subgrantee reporting mandates

As an exhibit to its grant agreement with subgrantees, the Puerto Rico Broadband Program will require a form that complies with the BEAD NOFO's regular financial and performance reporting requirements for subgrantees.⁸⁶ The grant agreement and compliance guidance materials will specify that subgrantees must submit the information in this form on at least a semi-annual basis to the Puerto Rico Broadband Program for the duration of the subgrant. Typically, the Puerto Rico Broadband Program will require the first such submission by subgrantees in the initial quarter in which the grant agreement is signed. The Puerto Rico Broadband Program will include provisions governing such regular compliance reporting within the grant agreement for subgrantees. In the grant agreement, subgrantees will be required to certify compliance with all applicable reporting and record retention requirements. Requirements may be derived from the following sources:

- Federal and state laws;
- Programmatic regulations;
- Public policy; and/or
- Administrative requirements, such as quarterly project and expenditure reports.

In addition to the periodic reporting requirements, the Puerto Rico Broadband Program will convey any record retention requirements. Per the grant agreement, subgrantees will be required to provide information requested by the Puerto Rico Broadband Program and its partners to fulfill any additional annual performance reporting requirements. In this section of the grant agreement with subgrantees, the Puerto Rico Broadband Program will condition final disbursement payment on subgrantees agreeing to provide the Puerto Rico Broadband Program

⁸⁶ See BEAD NOFO, p. 90-92.

final as-built network documentation in a manner to be approved by the Puerto Rico Broadband Program.

Regarding record retention requirements, the Puerto Rico Broadband Program will prescribe that subgrantees retain financial records, supporting documents, and any other records pertinent to the grant agreement for a period of five (5) years from the submission date of the final expenditure report or payment of final invoice. Extensions to this period may be granted in the event of litigation, claims, or audits beginning prior to the end of the five-year period.

Regarding the Puerto Rico Broadband Program's access to records, the Puerto Rico Broadband Program will incorporate provisions into its grant agreements with subgrantees detailing the right of the Puerto Rico Broadband Program and other duly authorized representatives the right of timely and unrestricted access to books, documents, papers, or other records, and reasonable access to past and present personnel for audits, examinations, and the like. Additionally, the Puerto Rico Broadband Program will communicate that the right of access to subgrantee records will last throughout the required retention period or as long as records are retained, if longer.

Regarding closeout, the Puerto Rico Broadband Program will require the subgrantee to submit any final reports as required by the NTIA and the Puerto Rico Broadband Program prior to closeout of the subgrantee award. Following the Puerto Rico Broadband Program's receipt of a subgrantee's final project audit, closeout will be conditioned on the Puerto Rico Broadband Program's determination that all monitoring and audit findings have been formally addressed and resolved. The Puerto Rico Broadband Program will require subgrantees to provide any outstanding financial, performance, or other required reports within ninety (90) days after the end date of the period of performance.

2.16.2 Text Box (cont.): d. Robust subgrantee monitoring practices.

The Puerto Rico Broadband Program's robust subgrantee monitoring process for various stages of its programs is outlined above. Through its two-step notice to proceed, budget amendment, initial budget breakdown, and its requirements regarding engineered design submittals, the Puerto Rico Broadband Program will have sufficient protections in place to ensure that all subgrantee projects are monitored throughout the period of performance. In addition, as also detailed above, the Puerto Rico Broadband Program's practices regarding invoice submittals, the grant disbursement request process, regular compliance reporting, testing, and the field review process, including desktop reviews and site visits, will ensure that subgrantees comply with BEAD program requirements.

Further, regarding audits and monitoring, the Puerto Rico Broadband Program will require each subgrantee to agree as a condition of its subaward and as part of its grant agreement with the Puerto Rico Broadband Program that it will cooperate with the Puerto Rico Broadband Program, NTIA, and the U.S. Department of Commerce with respect to any audit of the Puerto Rico Broadband Program's programs or the award. Additionally, the Puerto Rico Broadband Program will require subgrantees to review, understand, and comply with any applicable Puerto Rico laws and/or regulations regarding audits or accountability of Puerto Rico grant recipients, as applicable.

Documentation regarding the above requirements will be collected and reviewed by qualified Puerto Rico Broadband Program personnel and partners.

The Puerto Rico Broadband Program will communicate the above requirements to all prospective subgrantees prior to the selection process via outreach efforts to stakeholders in the form of webinars, in-person meetings, or guidance posted to the Puerto Rico Broadband Program's website. Additionally, such requirements will be noted in grant application instructions, grant agreement provisions, and compliance guidance to be published on the Puerto Rico Broadband Program website.

2.16.3 Check Box: Certify that the Eligible Entity will account for and satisfy authorities relating to civil rights and nondiscrimination in the selection of subgrantees.

The Puerto Rico Broadband Program certifies that its selection of subgrantees will account for and satisfy each of the following authorities:

- Parts II and III of Executive Order 11246, Equal Employment Opportunity,
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and
- Executive Order 13798, Promoting Free Speech and Religious Liberty.

The Puerto Rico Broadband Program shall, prior to distributing any BEAD funding to a subgrantee, require all subgrantees to agree, by contract or other binding commitment, to abide by the nondiscrimination requirements set forth in the following legal authorities, to the extent applicable, and to acknowledge that failure to do so may result in cancellation of any award and/or recoupment of funds already disbursed.

- Title VI of the Civil Rights Act
- Title IX of the Education Amendments of 1972
- The Americans with Disabilities Act of 1990
- Section 504 of the Rehabilitation Act of 1973
- The Age Discrimination Act of 1975
- Any other applicable non-discrimination law(s)

2.16.4 Check Box: Certify that the Eligible Entity will ensure subgrantee compliance with the cybersecurity and supply chain risk management requirements on pages 70 - 71 of the BEAD NOFO to require prospective subgrantees to attest that:

Cybersecurity

- 1) The prospective subgrantee has a cybersecurity risk management plan (the plan) in place that is either: (a) operational, if the prospective subgrantee is providing service prior to the award of the grant; or (b) ready to be operationalized upon providing service, if the prospective subgrantee is not yet providing service prior to the grant award;
- 2) The plan reflects the latest version of the National Institute of Standards and Technology (NIST) Framework for Improving Critical Infrastructure Cybersecurity (currently Version 1.1) and the standards and controls set forth in Executive Order 14028 and specifies the security and privacy controls being implemented;
- 3) The plan will be reevaluated and updated on a periodic basis and as events warrant; and

4) The plan will be submitted to the Puerto Rico Broadband Program prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to the Puerto Rico Broadband Program within 30 days.

Supply Chain Risk Management (SCRM)

- 1) The prospective subgrantee has a SCRM plan in place that is either: (a) operational, if the prospective subgrantee is already providing service at the time of the grant; or (b) ready to be operationalized, if the prospective subgrantee is not yet providing service at the time of grant award and
- 2) The plan is based upon the key practices discussed in the NIST publication NISTIR 8276, Key Practices in Cyber Supply Chain Risk Management: Observations from Industry and related SCRM guidance from NIST, including NIST 800-161, Cybersecurity Supply Chain Risk Management Practices for Systems and Organizations and specifies the supply chain risk management controls being implemented;
- 3) The plan will be reevaluated and updated on a periodic basis and as events warrant; and
- 4) The plan will be submitted to the Eligible Entity prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to the Eligible Entity within thirty (30) days. The Eligible Entity must provide a subgrantee's plan to NTIA upon NTIA's request.

The Puerto Rico Broadband Program certifies that it will ensure subgrantee compliance with the above cybersecurity and supply chain risk management requirements, and that the Puerto Rico Broadband Program will require prospective subgrantees to comply with the following measures.

The Puerto Rico Broadband Program shall also, to the extent a BEAD subgrantee relies in whole or in part on network facilities owned or operated by a third party (e.g., purchases wholesale carriage on such facilities), require such subgrantees to obtain the below attestations from its network provider with respect to cybersecurity practices and supply chain risk management practices.

- 1) The prospective subgrantee has a SCRM plan in place that is either:
 - (a) operational, if the prospective subgrantee is already providing service at the time of the grant or
 - (b) ready to be operationalized, if the prospective subgrantee is not yet providing service at the time of grant award;
- 2) The plan is based upon the key practices discussed in the NIST publication NISTIR 8276, Key Practices in Cyber Supply Chain Risk Management: Observations from Industry and related SCRM guidance from NIST, including NIST 800-161, Cybersecurity Supply Chain Risk Management Practices for Systems and Organizations and specifies the supply chain risk management controls being implemented;
- 3) The plan will be reevaluated and updated on a periodic basis and as events warrant; and
- 4) The plan will be submitted to the Puerto Rico Broadband Program prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to the Eligible Entity within thirty (30) days. The Eligible Entity must provide a subgrantee's plan to NTIA upon NTIA's request.

The Puerto Rico Broadband Program does not plan to impose any additional cybersecurity or supply chain risk management requirements on subgrantees.

Req. 20. Middle Class Affordability Plans

2.13.1 Text Box: Describe a middle-class affordability plan that details how high-quality broadband services will be made available to all middle-class families in the BEAD-funded network's service area at reasonable prices. This response must clearly provide a reasonable explanation of how high-quality broadband services will be made available to all middle-class families in the BEAD-funded network's service area at reasonable prices.

In the Five-Year Action Plan, the Puerto Rico Broadband Program identified objectives in four (4) key pillars of connectivity, quality, accessibility, and knowledge that have informed development of the proposed conduit system, which will provide high-quality services at reasonable prices for residents.⁸⁷ Objectives in the Five-Year Action Plan relevant for the conduit system include:

- Resilient fiber optic cable along key routes, available for multiple uses
- Easily scalable network to meet the evolving connectivity needs of households and businesses
- Mechanisms for the participation of small and medium enterprises; and
- Service affordability measures integrated into infrastructure planning.

Though the Puerto Rico Broadband Program will not directly fund last-mile deployment through BEAD, the BEAD-funded open access conduit network will facilitate high-quality broadband services for all middle-class families in Puerto Rico, as the conduit system will lower the cost of deployment and increase competition amongst providers, ultimately lowering the cost of service for residents. The inclusion of small and medium enterprises through conduit lease agreements will support long-term middle-class affordability in Puerto Rico, as lowered capital costs and less access barriers allow a more competitive service price environment. The Puerto Rico Broadband will continue to develop infrastructure with other funding sources that also address these affordability objectives.

⁸⁷ See Puerto Rico's Five-Year Action Plan for a complete list of goals and objectives.

Volume 2 Public Comment

2.17.1 Text Box: Describe the public comment period and provide a high-level summary of the comments received during the Volume II public comment period and how they were addressed by the Eligible Entity. The response must demonstrate:

- a. **The public comment period was no less than thirty (30) days; and**
- b. **Outreach and engagement activities were conducted to encourage feedback during the public comment period.**

The Puerto Rico Broadband Program posted a draft of this Initial Proposal Volume 2 from November 10 to December 10, 2023. The public comment period was advertised on social media, email newsletter, and through press release by the Puerto Rico Broadband Program. Residents were invited to share their thoughts on specific sections of the draft through an online web portal, by email to info@smartisland.pr.gov, and through meetings hosted by the Puerto Rico Broadband Program.

In addition to receiving public comments, the Puerto Rico Broadband Program continued to seek feedback from government agencies, workforce groups, and community organizations through the Broadband Executive Committee, the Broadband Advisory Council, and the Digital Equity Advisory Subcommittee. For more information on regular convenings with stakeholders, see Requirement 4. For a complete list of outreach and engagement activities conducted by the Puerto Rico Broadband Program, see the Local Coordination Tracker.

The Puerto Rico Broadband Program received comments from 17 entities. Some entities submitted multiple comments. The Puerto Rico Broadband Program has organized the comments received into the categories below.

Figure 19: Public Comment Categories

Category	Number of Comments
Affordable Device Program	3
Alternative Uses of Funds	11
Climate Assessment	1
Conduit System	12
Cost and Barrier Reduction	3
Digital Navigator and Literacy Program	1
Local Coordination	6
Workforce Development	4
Other	4

The following sections provide a high-level summary of the comments received and demonstrate how the Puerto Rico Broadband Program has incorporated feedback in this Initial Proposal, as applicable.

Affordable Device Program

Commenters highlighted the importance of device access in Puerto Rico and provided recommendations on the structure of the Affordable Device Program. As Puerto Rico's Digital Equity Plan demonstrates, there is a strong need for a device program that supports residents and provides the technical capabilities, security features, and associated training required to connect residents to online services.

The Puerto Rico Broadband Program agrees that critical planning is needed to implement this program. The existing Initial Proposal language sufficiently describes a responsive subgrantee selection structure that will weigh these considerations in the grant application and evaluation phases.

Alternative Uses of Funding

Last-Mile Deployment

Commenters requested BEAD funding for the deployment of last-mile services, satellite technology, and fixed wireless considerations.

Existing commitments for universal service through the FCC's Uniendo a Puerto Rico Program prevent the Puerto Rico Broadband Program from awarding BEAD subgrants for last-mile services. The Puerto Rico Broadband Program has proposed four BEAD non-deployment programs that complement existing obligations by investing in Puerto Rico's backhaul infrastructure, supporting resident access to devices and digital skills training, and developing a broadband workforce talent pipeline.

Low-Income Service Subsidies

Several commenters suggested that BEAD funding be directed toward service subsidies for low-income consumers. The Puerto Rico Broadband Program agrees that low-income consumers deserve equitable access to broadband. Further, the Puerto Rico Broadband Program believes funding should support long-term interventions that sustain low-income and middle-class affordability of broadband service.

The proposed conduit system will establish long-term, resilient service for residents, and the subgrantee selection scoring rubric for the conduit developer prioritizes affordability. Successful development and tenant use of the proposed conduit system will support low-cost broadband service for residents as the open access nature of the system provides more opportunities for small and medium enterprises to compete.

In addition to the proposed Affordable Device Program that will enable device access for low-income residents, the Puerto Rico Broadband Program continues outreach efforts to enroll eligible residents in the Affordable Connectivity Program benefit. Affordability will remain an important factor in the Puerto Rico Broadband Program's planning.

Community Anchor Institution Service Subsidies

Liberty recommended using BEAD funding to subsidize service to community anchor institutions.

The Puerto Rico Broadband Program agrees that community anchor institutions require high-speed service for their essential community work. The proposed conduit system will provide reliable infrastructure to enable long-term symmetrical gigabit service to community anchor institutions. Rather than subsidizing service for a single provider, the open access conduit system is scalable and upgradable, providing competitive opportunities for multiple service providers to offer prices that enable community anchor institutions to afford long-term use of high-speed service.

Other Alternative Uses of Funding

Commenters made additional requests to utilize BEAD funding for cybersecurity, back-up timing, computer science and tech support, and remote learning. The Puerto Rico Broadband Program's four non-deployment programs and additional contractor activities described in this proposal represent the best path forward for successful implementation of BEAD funding that supports Puerto Rico's goals and objectives outlined in the Five-Year Action Plan.

Climate Assessment

WorldNet agreed with the climate assessment described in Requirement 15 and requested provisions on the coordination of all carriers in the event of natural disaster to maintain or regain service.

The Puerto Rico Broadband Program acknowledges the importance of emergency preparedness and coordination in the event of a natural disaster. While important, the recommended measures are not within the scope of the BEAD Initial Proposal and the Puerto Rico Broadband Program is not a regulatory agency. Therefore, it declines to add the requested changes to this proposal.

Conduit System

Competition and Use of a Single Subgrantee

Some commenters expressed concern that the selection of a single subgrantee for development and operation of the conduit system would prevent competition and fair conduit access.

Commenters suggested dividing the conduit route and awarding segments to different subgrantees. The suggested method to divide the conduit system still creates instances of a single conduit operator in any given segment of the route and complicates tenant access.

The Puerto Rico Broadband Program agrees that open access to the conduit on reasonable terms and competitive participation is critical to the system's long-term success. As such, the Puerto

Rico Broadband Program will maintain the existing single subgrantee selection structure for the conduit system.

In this Initial Proposal, the Puerto Rico Broadband Program has outlined the open access model for the system that will inform every phase of planning and implementation. The conduit developer and manager will be held to standards established by the Puerto Rico Broadband Program that require the system be made available to multiple users. As described in Requirement 9, the Puerto Rico Broadband Program will work with an independent engineer to ensure the conduit system design and selected route support the participation of multiple users. Further, as noted in the conduit system subgrantee selection scoring rubric in Appendix A, applicants will be awarded additional points for providing letters of intent from potential conduit system users not affiliated with the applicant. The open access model prevents a single entity from monopolizing the conduit, creating a level playing field from the initial project design through operation of the complete system.

Financial Sustainability

Claro expressed concern that the conduit system may not be financially sustainable. The Puerto Rico Broadband Program agrees that measures must be put in place to ensure the conduit system is financially viable, made possible in part by ensuring the robust participation of multiple users throughout the life cycle of the conduit. The Puerto Rico Broadband Program's evaluation procedures support the selection of a financially sustainable subgrantee capable of long-term operation. In the competitive bidding process, applicants must provide financial pro forma, a proposed conduit lease agreement, and an estimated cost per tenant. Further, applicants will be awarded points for letters of intent from potential conduit system users not affiliated with the applicant and will receive additional points for providing letters of intent that cover at least 90% of the proposed system mileage.

The Puerto Rico Broadband Program will solicit the participation of all stakeholders, as available, to provide information relevant for the conduit system design and model lease terms in an upcoming Expression of Interest/Request for Information. Commenters interested in providing further information and recommendations on financial sustainability are encouraged to participate.

Government Benchmark and Reserve Bidder

Internet service providers expressed concern with utilizing a government-owned instrumentality as the benchmark and reserve bidder.

The Puerto Rico Broadband Program has noted these concerns and will no longer utilize a benchmark and reserve bidder to advance the project. Though the process will no longer utilize an initial public bid, the Puerto Rico Broadband Program has maintained the other parameters previously described in Requirement 9 that support a fair, open, and competitive subgrantee selection process for the conduit system developer. With the support of engineering services and

industry participation in the upcoming Expression of Interest/Request for Information, the Puerto Rico Broadband Program will develop a conduit system design, estimated cost, and model lease terms. These materials will be made available in advance of the competitive bidding process to ensure all applicants have the required information to develop competitive bids.

Pole Attachments

The Puerto Rico Broadband Program received comments on the following passage in Requirement 9:

“...the Puerto Rico Broadband Program will limit pole attachments and instead transform the island’s telecommunications infrastructure with BEAD funding by installing buried, open access conduit.”

Some commenters expressed concern that with this statement, the Puerto Rico Broadband Program intends to ban or limit the use of poles or pole attachments in Puerto Rico. The Puerto Rico Broadband Program will not attempt to ban poles or pole attachments and is instead highlighting the utility of buried, open access conduit as an alternative to pole attachments.

Separation of Roles

Commenters provided recommendations on the separation of roles during and after conduit construction. These recommendations included preventing the engineering firm designing the conduit system from participating in the bidding process, as well as disallowing the constructor from providing service on the conduit.

The Puerto Rico Broadband Program acknowledges the importance of a separation of roles and has designed a route selection and subgrantee selection process that accommodate these efforts to preserve fair access. For route selection, the engineering firm contracted to provide conduit network design services will not be eligible for participation in the bidding process. For subgrantee selection, bidders for the conduit system will be required to demonstrate providing equitable access to potential tenants by supplying letters of intent from non-affiliated entities. See the scoring rubric in Appendix A for more information.

Route Selection

The Puerto Rico Broadband Program received comments on the conduit system route selection, including requests to participate in the route selection and design process, environmental and duplication concerns, and objectives of the route.

The Puerto Rico Broadband Program agrees that the conduit system design should maximize existing facilities and accommodate the varied terrain of the island. The conduit system will not

be built to every broadband serviceable location in Puerto Rico, as some routes through the island are not feasible for buried conduit. Instead, the Puerto Rico Broadband Program will support a conduit system design that provides the routes needed for middle- and last-mile services in rural areas, accommodating the factors that have left those areas unserved.

The Puerto Rico Broadband Program encourages all stakeholders, as available, to provide information relevant for route selection during the upcoming Expression of Interest/Request for Information. The Puerto Rico Broadband Program is especially interested in more information on existing facilities that can be made available through swaps or trades and which routes through the island are most suitable. See Requirement 9 for updated information on the Puerto Rico Broadband Program's deduplication and value engineering processes.

Scoring

The International Brotherhood of Electrical Workers (IBEW) requested a higher score for fair labor practices in the conduit subgrantee selection scoring rubric in Appendix A.

The Puerto Rico Broadband Program recognizes the importance of fair labor practices and will award significant points for applicants with a proven track record of fair labor compliance and those with a robust fair labor implementation plan. The Puerto Rico Broadband Program has ensured the existing scoring rubric reflects the priorities of the conduit system and promotes a well-rounded bid that accommodates each of the criteria.

The Puerto Rico Broadband Program also received recommendations on scoring mechanisms for last-mile broadband service projects. The Puerto Rico Broadband Program will maintain the existing scoring rubric, as no BEAD subgrants will be awarded for the deployment of last-mile service in Puerto Rico.

Terms of Access

Commenters shared recommendations on the terms of access for the conduit system. The Puerto Rico Broadband Program agrees that the conduit system's design, lease agreement, and terms must support open access and remain fair and competitive for all prospective tenants.

There will be no exclusivity in access to the conduit. While the Puerto Rico Broadband Program will select a single subgrantee to develop and operate the conduit system, the developer and operator will be required to support the participation of a wide range of tenants. Applicants will be evaluated on letters of intent presented from potential tenants, demonstrating the applicant's ability to form relationships with a range of potential tenants and that those non-affiliated entities agree with the applicant's proposed terms. At this time, the Puerto Rico Broadband Program declines to adopt any special pricing or credit mechanisms for conduit access. The competitive bidding and review processes will support the adoption of reasonable and fair open access terms by the winning subgrantee.

The conduit system will be designed to support the needs of potential users. The Puerto Rico Broadband Program recognizes accommodating an abundance of conduit space during initial construction of the system is more cost effective and efficient than constructing too little and requiring construction for additional capacity later. In the design process supported by engineering services, the Puerto Rico Broadband Program intends to plan for sufficient conduit space to meet the capacity needs of potential tenants, provided potential tenants express those needs with sufficient detail during the Expression of Interest.

The Puerto Rico Broadband Program encourages all stakeholders, as available, to provide information relevant for the conduit system's capacity and terms during the upcoming Expression of Interest/Request for Information. The Puerto Rico Broadband Program is especially interested in more information on existing facilities, size considerations, technical requirements, and terms that would support the participation of potential tenants.

Construction Vendors

Commenters suggested that the construction of the conduit system be segmented to allow the participation of multiple vendors.

The selection of a single subgrantee will not prevent the participation of multiple construction vendors. While the Puerto Rico Broadband Program will select a single subgrantee for the development and operation of the conduit system, the subgrantee may utilize subcontractors for construction and will manage the construction process, including segmenting the construction as needed and selecting the appropriate vendors.

Use of Deployment and Non-Deployment Funding

Commenters agreed and disagreed on the classification of the conduit system as a "non-deployment program" in this proposal.

As noted in Requirements 8 and 17, Claro and Liberty are mandated to build and deliver universal service by 2028, meaning the statutory requirement of the BEAD program to deploy broadband service to all unserved and underserved locations is met through existing commitments in Puerto Rico.

For the purposes of the BEAD program, NTIA considers "deployment programs" to include only last-mile service projects. As such, the Puerto Rico Broadband Program's proposal for the conduit system is considered a "non-deployment" program for BEAD funding purposes. The Puerto Rico Broadband Program has maintained certain BEAD "deployment" requirements for the conduit system as relevant for construction and operation, including letter of credit provisions, BABA and EHP compliance, and certain scoring priorities for subgrantee selection.

Cost and Barrier Reduction

Several commenters reiterated the need for streamlined and unified permitting procedures.

The Puerto Rico Broadband Program agrees on the importance of expediting the permitting process and will continue to work with the Legislative Assembly of Puerto Rico, government agencies, municipal governments, and other key stakeholders to minimize delays.

Digital Navigator and Literacy Program

WorldNet supported the Digital Navigator and Literacy Program but noted that digital literacy training and education initiatives should complement infrastructure development and not replace it in funding plans.

The Puerto Rico Broadband Program agrees and has planned the four non-deployment programs described in this proposal in alignment with the priorities and objectives outlined in Puerto Rico's Five-Year Action Plan. The Puerto Rico Broadband Program's comprehensive approach to broadband infrastructure and digital equity programming with BEAD funding and other sources will support broadband adoption for all residents and businesses, aligned with the Puerto Rico Broadband Program's four pillars: connectivity and resilience, quality and speed, accessibility, and knowledge.

Local Coordination

During the public comment period, the Puerto Rico Broadband Program received requests for participation, planning involvement, and recognition of efforts from a range of stakeholders, including nonprofit organizations and internet service providers. The Puerto Rico Broadband Program recognizes the importance of ongoing engagement with stakeholders and will continue to engage throughout the implementation of these activities.

The Puerto Rico Broadband Program encourages all stakeholders, as available, to provide information relevant for the conduit system design during the upcoming Expression of Interest/Request for Information. To support efficient use of BEAD funding for the conduit system, the Puerto Rico Broadband Program is seeking the collective expertise of the industry to help form the scope of the project and identify strategic approaches that will achieve the project goals. Information received during the request for information period will guide the route selection, conduit design, and model lease terms for competitive bidding.

Ongoing opportunities for stakeholder involvement will continue throughout the subgrantee selection phase of BEAD implementation. In addition, the Puerto Rico Broadband Program continues to engage with state agencies, workforce groups, and community organizations through the Broadband Executive Committee, the Broadband Advisory Council, and the Digital Equity Advisory Subcommittee.

Commenters are welcome to contact the Puerto Rico Broadband Program at info@smartisland.pr.gov with concerns and additional information for successful implementation of BEAD programs.

Workforce Development

Commenters requested more information on the Puerto Rico Broadband Program's plan for workforce development, including how the Puerto Rico Broadband Program will tackle the current shortage of skilled workers. Liberty suggested that the Puerto Rico Broadband Program add a non-deployment activity dedicated to developing and implementing training programs for the telecommunications workforce on the island, and the Wireless Infrastructure Association asserted that it has the capacity to offer necessary training and curricula for 3,000-5,000 skilled telecommunications workers.

The Puerto Rico Broadband Program recognizes the importance of workforce development programs and will invest BEAD funds to supplement existing PRBIF workforce efforts. The Puerto Rico Broadband Program has added to this proposal information on the \$15,000,000 BEAD investment in a workforce development grant program to build Puerto Rico's broadband industry talent, meet the needs of employers, and strengthen Puerto Rico's economy. Details can be found in Requirement 9.

Other Topics

In addition to the topics above, commenters praised specific initiatives and acknowledgements the Puerto Rico Broadband Program included in this proposal, requested additional key performance indicators to track progress, and emphasized the need for Spanish language versions of all key documents.

The Puerto Rico Broadband Program acknowledges the importance of tracking progress and has outlined objectives and key performance indicators in both the Five-Year Action and Digital Equity Plans. Spanish language versions of the final Initial Proposal Volumes I and II will be made available shortly.

Finally, the Puerto Rico Broadband Program thanks commenters for their support and feedback and will continue to plan programs aligned with the broadband and digital equity needs of residents.

Appendix A: Conduit System Subgrantee Selection Rubric

Minimal BEAD Program Outlay	60 max points
<p>The total BEAD funding required to complete the project, accounting for the total projected cost and the prospective subgrantee's proposed. The selection process would involve carefully assessing proposed budgets, ensuring they align with industry standards while maintaining a commitment to quality and durability. Entities capable of offering competitive costs without compromising the integrity of the buried conduit system would score higher, as this reflects financial acumen and positions them as valuable contributors to the economic feasibility and success of the telecommunications infrastructure project.</p> <p>First Phase of Bidding 60 Points – 1 point per percentage point below a "reference" cost per mile of conduit. The Puerto Rico Broadband Program will establish the "reference" cost at a level 30% higher than an estimate provided by its engineering contractor after the high-level design phase. The reference cost will use a set of stated assumptions about a mix of construction conditions (e.g. depth, number and type of conduits, soil type, rural vs. urban mix, etc.).</p> <p>Second Phase of Bidding 60 Points – 1 point per percentage point increase in the total miles of buried conduit to be constructed for the grant funding offered, compared to the mileage estimated to be constructable at that grant cost calculated in the design budget. Bidders' cost per mile proposed may not exceed 20% of the cost provided in the first phase for a comparable mix of construction conditions.</p>	
Affordability	60 max points
<p>Affordability requirements for utilizing the open conduit and fiber network system are integral to ensuring accessibility and inclusive service provision. Telecom carriers commit to offering affordable services to end-users, particularly in underserved or economically disadvantaged areas. The prospective entity must outline conduit pricing structures that promote widespread affordable access, mitigate digital divides, and enhance connectivity for the benefit of all residents. A benchmark assessment of the market and competitive landscape and suggested pricing models for access to the conduit system will be included in the solicitation. The review will compare bidder's proposed rates by comparison using a "Benchmark" basket of various hypothetical tenant commitments to volumes of conduit- and route-miles, and lease term years.</p> <p>First Phase of Bidding 60 Points – Bidders may provide a projected set of conduit lease rates and receive points. Bidders may decline to provide conduit lease rates at the first phase but will receive zero points for the criterion at this phase. Bidders providing rates will be ranked from highest to lowest applying those rates against the "Benchmark" basket of lease commitments. The lowest lease cost for the "Benchmark" will receive forty points, the highest one point. Other respondents will receive points proportionally based on cost between the lowest and highest. Bidders who demonstrate that proposed lease rates are financially sustainable through a strong pro forma cash flow using the projected rates will receive a bonus of 50% of the points awarded (rounded up). A</p>	

"strong pro forma cash flow" will include take-rate and operating cost projections based on the bidders' documented prior operating experience and/or documented commitments from vendors and potential tenants.

Second Phase of Bidding

60 Points – Bidders must provide conduit lease rates if not already provided in the first phase. Bidders will be assigned points in this category based on the following criteria: 0 points for coming in at the Benchmark Rate or higher. 20 Points for a 5% discount, 40 Points for a 10% discount, and 60 Points for a 15% discount.

The "Benchmark Rate" will be set at a level to encourage proposals that are below current available commercial rates for similar services. Bidders' rates will be compared to the Benchmark Rate using the "Benchmark" basket of lease commitments.

Experience 50 max points

The prospective subgrantee should provide evidence of a successful track record in planning, deploying, and managing buried conduit systems for telecommunications infrastructure. This should include proof of completing projects of similar scale and technical complexity while adhering to industry standards.

35 Points – Must include at least three (3) examples of specific experience and indicate proven ability to implement similar projects for the firm and the individuals involved in the projects.

15 Points – A summary of related projects with the original deadline and cost estimate versus the actual completion date and final variance cost of the project.

Open Access 50 max points

The open access model prevents a single entity from monopolizing the conduit, creating a level playing field and fostering a dynamic market environment. By allowing multiple competitors to share the same infrastructure, the buried conduit project aims to maximize efficiency, minimize redundancy, and deliver diverse, high-quality telecommunication services to the community.

First Phase of Bidding

10 points – Provide a commitment to offer non discriminatory rates, including offering access to any tenants at wholesale rates not less than the offered to the entity's own service or affiliated companies.

20 points – Commitment to provide management of the conduit network through an affiliated company not sharing common management with any affiliated company using the conduit.

40 points – Bids from companies not sharing common ownership with any potential tenants, except joint ventures between tenants where no owner exercises effective control of the company.

50 points - Bids from companies or institutions not sharing common ownership with any potential tenants, except joint ventures between tenants, where no owner exercises effective control of the company, and a commitment or institutional safeguards not to engage in a sale or transaction providing effective control of the conduit management operation for a period not less than 20 years, without consent.

Second Phase of Bidding

10 Points – Have at least one letter of intent from a potential conduit system user not affiliated with the applicant.

20 Points – Have a second letter of intent from a potential conduit system user not affiliated with the applicant.

20 Points – Have a third letter of intent from a potential conduit system user not affiliated with the applicant AND letters of intent from non-affiliated users covering at least 90% of the proposed system mileage.

Speed to Deployment**40 max points**

The promptness of project implementation is a crucial factor in selecting a subgrantee for the buried conduit system project. The selection criteria will prioritize candidates who can efficiently and promptly execute the project without compromising on quality or safety. Factors such as a well-defined project timeline, proactive problem-solving approaches, and streamlined construction processes are evaluated to assess an entity's ability to expedite the deployment of the buried conduit system.

First Phase of Bidding

Bidders presenting a credible plan to achieve either or both of the timeline goals (see the second phase) will receive points. The strongest response receives 40 points. The least strong but still credible plan receives 10 points. All other credible responses receive 25 points. Plans are non-binding at this phase.

Second Phase of Bidding

Points may be achieved by making a commitment to achieve either one or both of the timeline goals below. A non-performance penalty for not achieving the commitment may be levied up to 5% of the grant cost.

20 Points – 20 Points for achieving 30 percent completion within 18 months of award.

20 Points – 20 Points for achieving 75 percent completion within 36 months of award.

Local Coordination**40 max points**

Prospective subgrantees must possess a strong understanding and dedication to collaborating with local stakeholders. This scored criterion seeks entities that effectively communicate and cooperate with municipal authorities, utility providers, and community representatives to navigate local permitting processes, zoning regulations, and unique challenges specific to the project's location. The applicant will submit a strategic plan for building positive relationships with local entities, ensuring a seamless integration of the buried conduit system into the existing infrastructure while addressing any concerns or preferences of the community.

15 Points – Project plan must include how the entity will achieve a comprehensive community engagement, regular public consultations, and proactive measures to address and incorporate community feedback.

15 Points – Project plan must include how the entity will achieve extensive collaboration with local government bodies, municipal authorities, and relevant agencies.
 10 Points – Plan must include projected effectiveness of measures to be taken to mitigate the environmental impact of construction activities, considering factors like soil erosion, vegetation preservation, and waste management.

Fair Labor Practices 40 max points

The criteria will evaluate candidates based on their demonstrable adherence to ethical employment standards, which ensure the welfare and equitable treatment of workers involved in the project. This encompasses compliance with pertinent labor laws, adherence to health and safety regulations, and a dedication to providing just compensation and benefits.

40 Points – For bidders with a proven Fair Labor Practice compliance track record.
 30 Points – For bidders that supply a robust implementation plan for Fair Labor Practices. Points are determined based on the strength of the plan.

Workforce Development and Job Quality 30 max points

Equitable workforce development and job quality are essential selection criteria for deploying a buried conduit system project, emphasizing the prospective entity's commitment to creating positive socio-economic impacts. Applicants will be assessed by their willingness to advance the workforce initiatives described in Requirements 9 and 12.

Applicant will support the Puerto Rico Broadband Program's workforce plans and align with the requirements described in the BEAD Notice of Funding Opportunity (Section IV.C.1.f) to use a highly skilled workforce capable of carrying out work in a **manner that is safe and effective**. Specifically, the applicant will commit to:

10 Points – Supporting workforce development through engagement with the Puerto Rico Broadband Program's workforce initiatives. Agreed upon engagements with workforce initiatives may include employing Registered Apprentices, engaging with short-term credential programs and other training opportunities.

10 Points – Leveraging equitable on-ramps into deployment, construction and maintenance jobs, advancing job quality for new and incumbent workers; and engaging with labor organizations and community-based organizations to maintain worker voice throughout the planning and implementation process.

5 Points – Participating in sector-based partnerships with education and training providers, the public workforce system, unions and worker organizations, and community-based organizations that provide relevant training and wrap-around services to support workers to access and complete training (e.g., childcare, transportation, mentorship), to attract, train, retain, or transition to meet local workforce needs and increase high-quality job opportunities.

5 Points – Ensuring that the job opportunities created by the Puerto Rico Broadband Program are available to a diverse pool of workers.

Technical Capabilities**30 max points**

The prospective entity must demonstrate proficiency in advanced engineering and construction techniques for buried conduit systems.

15 Points – Applicant must present documentation that reflects a deep understanding of soil conditions, environmental considerations, and the optimal deployment of fiber optic cables—expertise in trenching, boring, and backfilling techniques and utilizing cutting-edge technology for surveying and installation purposes.

15 Points – Applicant’s capacity to integrate smart infrastructure components, such as sensors and monitoring systems, may also be considered to enhance maintenance and ensure long-term system resilience.