

State of North Carolina

BEAD INITIAL PROPOSAL VOLUME II

Broadband Equity, Access, and
Deployment (BEAD) Program

NCDIT  NORTH CAROLINA
DEPARTMENT OF
INFORMATION
TECHNOLOGY
Division of Broadband and Digital Equity

www.ncbroadband.gov

Volume II Initial Proposal Requirements

Objectives (Requirement 1)

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.

Governor Cooper's plan, as detailed in North Carolina's Broadband Equity, Access, and Deployment (BEAD) [Five-Year Plan](#), seeks to achieve reliable, affordable universal access to broadband and to significantly increase adoption rates by dedicating nearly \$1 billion in federal American Rescue Plan Act (ARPA) funds and more than \$1.5 billion in Infrastructure Investment and Jobs Act BEAD program funds to achieve the following goals:

- Investing \$971 million to build critical infrastructure to deliver internet speeds of 100/20 Mbps to 98% of unserved households with the ability to handle future speeds of 100/100 Mbps.
- Investing BEAD funding to build infrastructure to deliver internet speeds of 100/20 Mbps to the remaining unserved households and 100% of all underserved households, locations in high-cost areas, and community anchor institutions, with remaining funds dedicated to affordability programs.
- Investing \$50 million to create awareness and support digital literacy and skills training to enable the state's workforce to participate in the digital economy.
- Promoting enrollment in the Affordable Connectivity Program to increase participants to 1 million North Carolina households by the end of 2023 - currently 862,597 households (Nov. 6, 2023).
- Deploying \$1.415 million of Digital Equity Act funding plus other funds that may be available from ARPA, BEAD, and other programs to increase high-speed internet adoption by raising percentages of subscriptions as shown below:
 - Raising the percentage of North Carolina households with high-speed internet subscriptions from 73% to 80%.
 - Raising the percentage of North Carolina households with children with high-speed internet subscriptions from 81% to 100%.
 - Increasing adoption rates to 80% across racial subgroups:
 - Native American (currently 57%)
 - Black: (currently 64%)
 - Latinx: (currently 68%)
 - White: (currently 76%)

Pursuit of each of these goals, and improvements in access to adoption, and use of high-speed internet service, will support economic growth, enhance job creation, and provide opportunities for residents to prosper across the state.

Local, Tribal, and Regional Broadband Planning Processes (Requirement 2)

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 division and its predecessors have a long history of stakeholder engagement. For almost 10 years, the state has employed technical assistance advisors to work with local communities on creating broadband planning task forces, identifying funding sources, crowdsourcing, and engaging internet service providers. Our mapping and data collection initiatives involved a survey and speed test. The Growing Rural Economies with Access to Technology (GREAT) grant, enacted in 2018, led to educational outreach initiatives in every region of the state. The division staffed the governor's broadband task force, which brought together state agencies and relevant stakeholder groups to develop recommendations to improve deployment and increase digital inclusion.

The division uses the BEAD and Digital Equity planning grants to help fund local coordination efforts to ensure that the state's comprehensive plans to address high-speed internet access and digital equity are inclusive of all N.C. communities and populations' needs. The detailed local coordination plan that includes objectives, strategy, timeline, and tools is included in the N.C. BEAD Five Year Plan, Appendix E.

The division completed its initial community outreach for BEAD and Digital Equity planning as part of the development of this plan and to build a foundation for continued engagement during implementation. The results and findings of this initial outreach were presented to NTIA, stakeholders, and the public at the Closing the Digital Divide: Internet for All in NC summit in Raleigh, N.C., on May 23, 2023. The overwhelming feedback from residents and local leaders is that this plan should address access, affordability, and digital literacy. The state's strategies for addressing those issues are included in this Initial Proposal and the forthcoming State Digital Equity Plan.

The division held a tribal consultation on May 18, 2023, with the Eastern Band of Cherokee Indians. Based on this engagement, the state gained a better idea of how the tribe plans to provide improved access on tribal lands. The division committed to work with the tribe to find opportunities to use BEAD funding for deployment where needed. Additional discussions followed to coordinate broadband and digital equity strategies.

The division participated in a virtual meeting with a representative of the Catawba Nation of South Carolina on March 15, 2023, because they own tribal lands used for business purposes in a portion of North Carolina. No related broadband or digital equity needs were identified at that time. After that meeting, the state sent a formal letter inviting the Catawba Nation of South Carolina to participate in a formal tribal consultation but did not receive a response.

In addition, the division presented information about the planning process to the N.C. Commission of Indian Affairs in March 2023 to solicit their input and seek ways to collaborate with the eight state-recognized tribes and four urban Indian organizations represented on the commission. State-recognized tribes include: Coharie, Eastern Band of Cherokee Indians, Haliwa-Saponi, Lumbee, Meherrin, Occaneechi Band of the Saponi Nation, Sappony, and

Waccamaw Siouan. Members of state-recognized tribes participated in the regional sessions convened across the state in April and May 2023 and shared valuable input about the needs and assets of their communities. Tribal organizations submitted public comments to inform the BEAD Five Year Action Plan draft posted in summer 2023 for public input as well. Finally, one of the listening sessions convened in June 2023 for individuals who identify as covered populations focused on American Indian mothers who reside in the eastern part of the state.

The division formed meaningful partnerships with key state agencies, nonprofits, and trade associations, in addition to internet service providers, to coordinate and augment the state's resources to close the digital divide. In April and May 2023, the division held interviews with six other state government agencies, including the N.C. Departments of Adult Corrections, Commerce (which includes workforce programs), Health and Human Services, Natural and Cultural Resources, Public Instruction, and Transportation to discuss how the BEAD and State Digital Equity plans should align with the strategic plans of those agencies.

Whether partners are electric membership cooperatives, computer refurbishment agencies, digital navigators, or libraries, each plays an equally important role in achieving universal service and digital equity. The division works with partner organizations and key stakeholders to best understand and therefore provide plans that provide access and digital equity for all communities. See the N.C. BEAD Five Year Plan, Appendix B for a list of digital equity grant recipients and other important partners who participated in regional listening sessions or other convenings. The State Digital Equity Plan will include a comprehensive list of all organizations in the state working to create a digitally equitable state.

The division will continue to engage and solicit feedback from a variety of broadband and digital equity stakeholders across the state that have a vested interest in expanding high-speed internet access and building digital equity within the communities they serve, represent, and live.

Local Coordination (Requirement 4)

Describe the coordination conducted, summarize the impact such coordination 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.

The local coordination described for Requirement 3 resulted in valuable input that informed the content of the Initial Proposal. Feedback from residents, local leaders, and various stakeholders indicates that the BEAD funding should be used to address access, affordability, and digital literacy. For that reason, other sections of this Initial Proposal describe the state's plans to achieve universal broadband services, improve affordability of service available to residents, and provide opportunities to increase digital literacy. The division ensured full geographic coverage in these efforts by tracking data about the counties represented in regional sessions, listening sessions, webinars, and by survey participants. The division also partnered with the NTIA, NC Association of County Commissioners, and NC League of Municipalities to cohost a local coordination summit in May 2023 that included hundreds of participants in person and online from diverse locations in the state.

Extensive engagement efforts related to workforce development informed the labor standards and protections, workforce readiness, and underrepresented businesses sections as well. In Spring 2023, North Carolina created a statewide Broadband Workforce Advisory Committee to provide guidance to the division. Committee meetings, employer listening sessions, and

interviews with key stakeholders and training providers generated information related to the challenges, opportunities, and strategies that informed development of the plan.

Other state agencies also provide valuable input and collaboration to strengthen the Initial Proposal, such as including the N.C. Departments of Adult Corrections, Commerce, Community Colleges, Health and Human Services, Justice, Natural and Cultural Resources, Public Instruction, and Transportation. These collaborations produced programming, workforce strategies, digital equity initiatives, and permitting improvements that are critical to the Initial Proposal. They also ensured alignment with the strategic plans of these state agencies that are key to closing the digital divide in the state.

Ongoing coordination efforts will support development of the Final Proposal as well. The division will continue convening the digital equity core team and working groups, workforce advisory committee, and digital equity and inclusion collaborative. The division facilitates regular meetings with stakeholders like the N.C. Association of County Commissioners and N.C. Rural Center, which are critical to communicating about the needs of local governments, rural residents, and covered populations. Internet service providers and related manufacturers in the state also provide critical feedback to inform BEAD planning and implementation so outreach and communication with them will also remain a priority.

Finally, relationships established and nurtured with nonprofit organizations are fundamental to helping the division understand the needs of covered populations and communicate with representatives of those populations directly. These covered populations include aging individuals, incarcerated individuals, individuals who are members of a racial or ethnic minority group, individuals who live in low-income households, individuals who primarily reside in a rural area, individuals with a language barrier (including individuals who are English learners and those with low levels of literacy), individuals with disabilities, individuals who identify as LGBTQIA+, and veterans. To better understand the specific broadband and digital equity needs of covered populations, the division partnered with organizations that have community trust to host 23 listening sessions and recruit participants. These partnerships enabled connections with individuals who may not have been reached otherwise and provided better understanding of the needs of each covered population. The division intends to continue these partnerships and will provide periodic progress on plans and implementation, soliciting feedback along the way.

The division provided transparency about its processes, including the publication of results and outcomes, by continuously updating its website with documents, resources, and publications. The division began hosting quarterly webinars in March 2023 to provide information about the planning and local coordination processes and share findings and learnings along the way. These webinars are recorded and posted online afterward, along with the presentation slides used during the webinar. The division also shares information about what it learns from local coordination in various meetings and presentations across the state convened in person and virtually.

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.”

The division held a tribal consultation on May 18, 2023, with the Eastern Band of Cherokee Indians. Based on this engagement the state gained a better idea of how the tribe plans to provide improved access on tribal lands. The division committed to work with the tribe to identify opportunities to use BEAD funding for deployment where needed. Additional discussions followed to coordinate broadband and digital equity strategies. For example, division personnel met with tribal representatives on Dec. 11 and discussed state funding and their upcoming application for the Tribal Broadband Connectivity Program administered by NTIA.

The division participated in a virtual meeting with a representative of the Catawba Nation of South Carolina on March 15, 2023, because they own tribal lands used for business purposes in a portion of North Carolina. No related broadband or digital equity needs were identified at that time. After that meeting, the state sent a formal letter inviting the Catawba Nation of South Carolina to participate in a formal tribal consultation but did not receive a response. The division remains continuously willing to collaborate with the Catawba Nation of South Carolina at any time.

Deployment Subgrantee Selection (Requirement 8)

Deployment Projects Subgrantee Selection Process & Scoring Approach

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

The division will ensure a fair, open, and competitive process in a number of ways. Phase one of the process, as described below, will allow all potential subgrantees seeking projects in the state to prequalify for the program by submitting documents to the division demonstrating their financial, technical, and operational capabilities. Phase two creates opportunities for all providers pre-qualified in phase one to submit more specific proposals for local projects. The division will publicize all bidding opportunities (in both phases) well in advance of the opening date to give eligible providers ample notice. Competitively neutral evaluation criteria (as described herein) will be used to pre-qualify providers and to evaluate specific project proposals and will include a review of the provider's qualifications, technical merit, financial solvency, and cost. Selections will be made consistent with the publicized criteria and in a competitively neutral manner that does not favor one particular type of provider over another.

All State employees are required to comply with the North Carolina State Ethics Act, N.C.G.S. Chapter 138A, which prohibits the use of public position or public information for private gain, restricts gifts to state employees, and sets out standards for state employees to remove themselves from official actions when a conflict of interest arises. In addition, the division has a Conflict-of-Interest policy that addresses compliance with the State Ethics Act and specifically prohibits participation by employees in contracts or purchase orders on behalf of the State where the employee may have an interest. Abiding by the Conflict-of-Interest policy is a condition of employment.

Adhering to publicized, neutral criteria in the selection process and complying with the State Ethics Act and Conflict of Interest policies will ensure that the division's processes for subgrantee selection are open, competitive, fair, and free from collusion or bias. Additionally, the division will require all applicants to complete and sign a non-collusion affidavit and conflict-

of-interest form to help ensure fairness and avoid any potential unethical or biased practices in the selection process.

The division's Broadband Infrastructure Office began developing and administering last-mile broadband deployment grants in 2018, including ARPA-funded broadband deployment programs since 2022. The office plans to build on this foundation to develop, launch, implement, and monitor all of the BEAD-funded deployment grants. The office has a demonstrated history of implementing fair, open, and competitive processes in awarding grants to broadband providers, both large and small, across the state.

The division utilizes the ncbroadband.gov website to share information with potential applicants as well as current grantees, including grants management pages for grantees and partners. The division will build on the current processes for launching grant application rounds, reviewing applications, making awards, and grant monitoring and compliance.

North Carolina is in a unique position to have several ongoing broadband deployment funding programs occurring at the same time as the BEAD program. In December 2021, the North Carolina General Assembly appropriated almost \$1 billion in American Rescue Plan Act (APRA) funding for last-mile broadband deployment through three infrastructure programs including Growing Rural Economies with Access to Technology (GREAT), Completing Access to Broadband (CAB), and Stop-Gap Solutions. The division is still implementing these programs, with all State and Local Fiscal Recovery Funds (SLFRF) required to be obligated by December 2024.

The three programs are generally structured as follows:

- **GREAT Grant Program:** GREAT is a grant program to provide funding to private sector broadband providers to make broadband service available to *unserved* locations. Providers develop and propose projects for review and scoring. Grants are awarded within county-geographic boundaries based on a scoring matrix that involves the number of households and businesses to be served, cost per location, and speeds to be provided. Matching funds are required at specific percentages based on state law. Counties may be partners in the projects through financial match contributions or through provision of infrastructure.
- **Completing Access to Broadband Program:** CAB is a procurement program to award funding to broadband providers to make broadband service available to *unserved* and *underserved* locations. The division works with counties to design and issue potential project scopes to pre-qualified broadband providers. Projects are awarded based on a competitive bidding process within county-geographic boundaries based on evaluation criteria developed by the division. Participating counties provide matching funds and have representation on the evaluation committee. Matching funds are required at specific percentages based on state law.
- **Stop-Gap Solutions Program:** Stop-Gap Solutions is a grant program for the provision and installation of broadband infrastructure to *unserved* and *underserved* locations. This program intends to fill in gaps not reached through the GREAT and CAB programs. Eligible applicants include broadband providers, county and municipal governments, and nonprofit organizations.

Prequalification Process for BEAD

Similar to previous North Carolina broadband funding programs (such as CAB and Stop-Gap, there will be a pre-qualification period for the BEAD program prior to opening subgrant applications for specific projects. The BEAD prequalification process will request that potential applicants submit information to demonstrate their financial, operational, technical, managerial and additional capabilities necessary to deploy broadband infrastructure for the provision of internet service in unserved and underserved areas of the state. The pre-qualification process will not result in a direct project award but acts as a review of qualifications of broadband providers and allows participants the ability to submit information that will also be required of subgrant applicants ahead of subgrant applications opening.

Only the primary applicant will need to pre-qualify. Prequalification is intended to streamline the application process, serving as a gating stage to ensure applicants meet the program's minimum and mandatory requirements. Information that will be requested as part of prequalification includes, but is not limited to:

- Financial Capability (Section IV, D, 2.a of the BEAD NOFO)
- Managerial Capability (Section IV, D, 2.b of the BEAD NOFO)
- Technical Capability (Section IV, D, 2.c of the BEAD NOFO)
- Compliance with applicable laws (Section IV, D, 2.d of the BEAD NOFO)
- Operational Capability (Section IV, D, 2.e of the BEAD NOFO)
- Ownership Information (Section IV, D, 2.f of the BEAD NOFO)
- Public Funding Information (Section IV, D, 2.g of the BEAD NOFO)
- Fair Labor Practices and Highly Skilled Workforce (Section IV, C, 1.e of the BEAD NOFO)
- Environmental and National Historical Preservation (EHP) and Build America and Buy America Act (BABA) compliance: (Section VII, D, 4. and 6. of the BEAD NOFO)
- Cybersecurity Compliance and Supply chain risk management compliance: (Section IV, C, 2.c.vi. of the BEAD NOFO)
- Any additional information required for prequalification will be communicated to the applicant as the documentation is reviewed by the division.

Project Area Units

North Carolina's BEAD deployment projects will utilize hexbins to divide the state into hexagonal geographic units. The selection of hexbins as the geographic unit has been made with the aim of streamlining network design, expediting administrative processes, and ensuring all eligible locations within the state are covered through the BEAD program.

Under this approach, all hexbins that contain at least one BEAD eligible location will be available for BEAD deployment. ISPs will be required to serve every eligible Broadband Service Location (BSL) in a selected hexbin (those that were identified by the State Challenge Process as unserved or underserved).

Applicants may choose the number of hexbins needed to form a project area, subject to the following criteria:

- Prior to accepting project applications, the division will publish guidelines for applicants aggregating hexbins. The guidelines will aim to ensure reasonable contiguity and adjacency of included hexbins.

- Some hexbins may be grouped by the division into larger, predefined project areas based on a clustering analysis, remoteness, financial viability, number of BSLs, proximity to adjacent cluster/grouping, and deduplication of existing federal, state, and local commitments. Applicants will be required to propose a project for the entire grouping in these instances.
- Applicants are encouraged to identify partners as needed to ensure that all eligible locations, (i.e., homes, businesses, multi dwelling units (MDUs), and CAIs) within their project areas can be served. For example, every unit of an MDU needs to have the proposed service available to it and to do so might require a partnership with a managed service provider.

Available hexbins will be available to view in a publicly facing interactive mapping tool. The geospatial file for project area units will also be made available.

Multiple Funding Rounds

The division will have multiple funding rounds of subgrantee selection to obligate BEAD funding. The subgrantee project application submission period will open following the close of the prequalification phase. This period will open and close at times later designated by the division and applications will require, at a minimum, the following information:

1. The identity of the applicant and its qualifications and experience with broadband deployment and administration of federal subgrants.
2. The total cost and duration of the proposed project.
3. The amount to be funded by the applicant. The applicant shall fund a minimum of twenty-five percent (25%) of the cost of the project unless the project includes NTIA-defined high-cost locations or a waiver is granted pursuant to the BEAD Program guidelines as set forth by NTIA.
4. A list of the eligible locations that will have access to qualifying broadband service as a result of the project.
5. The proposed construction timeline not to exceed four years, unless the division extends the four-year deadline if (i) the subgrantee has a specific plan for use of the grant funds, with project completion expected by a specific date not more than one year after the four-year deadline; (ii) the construction project is underway; or (iii) extenuating circumstances require an extension of time to allow the project to be completed.
6. A description of the services to be provided, including the proposed upload and download broadband speeds to be delivered.
7. A description of proposed cost tiers available to customers upon completion of the proposed project.
8. A description of the applicant's proposed low-cost broadband service option applicable to eligible subscribers in BEAD-funded areas.
9. Technology type of the proposed service.

The division will also allow applicants to identify a small number of BSLs within their selected project area as "Outliers" to aid in determining the extremely high-cost per location threshold. The division has a strong preference towards end-to-end fiber solutions, otherwise known as "Priority Projects" and expects all projects selected for BEAD funding in Round 1 to be end-to-end fiber projects. The division is aware that for some locations it may be unreasonable to deploy fiber infrastructure due to the cost and alternative technologies may need to be

considered. If the cost to serve using an end-to-end fiber solution for one or more locations included in a project is unreasonable to serve with the solution proposed for the rest of the BSLs in the selected project area, the applicants shall note these locations as “Outliers” in the application and provide a cost to serve each location. The division anticipates “Outliers” to be extremely rare occurrences. The identification of “Outliers” should only occur based on the extreme impracticability and unreasonableness of end-to-end fiber deployment because of geography, topography, or excessive cost. The division will evaluate “Outlier” locations as part of proposed project areas and consider either to:

- Retain the Outlier locations
- Serve the Outlier locations using an alternative technology
- Remove the Outlier locations from the project area to be served by another provider
- Remove the Outlier locations from the project area to be served by a separate project as part of Round 2

This approach is intended to ensure all locations within the State are served and universal connectivity is achieved. In the event that the division determines alternative technologies best serve an “Outlier” location, the corresponding project will then be deemed as an “Other Last-Mile Project” as opposed to a “Priority Project” and will be evaluated using that scoring criteria. See the below sections for more information on scoring projects.

After applications are scored, they will be ranked by score, and then (if needed) numbers of PAUs, and BSLs, with end-to-end fiber applications receiving priority, per the BEAD NOFO.

The division will preliminarily assign non-overlapping Project Areas where the proposed project cost falls below the Extremely High Cost Per Location Threshold. The division will then start the deconfliction process for applications that propose to serve overlapping Project Areas, beginning with the highest-scoring application, where the proposed project cost falls below the Extremely High Cost Per Location Threshold. In the event the highest scoring application does not fall below the Extremely High Cost Per Location Threshold, the division will repeat the process with the next highest scoring applicant, until all locations have been preliminarily assigned. The division may offer applicants the opportunity to reduce their proposed costs below the Extremely High Cost Per Location Threshold.

The division will identify the remaining broadband serviceable locations that do not yet have a preliminary assignment and offer non-winning applicant(s) an award based on the original proposal and available budget for the revised area, so that amount does not exceed the Extremely High Cost Per Location Threshold. These offers would be made in order of highest scoring applications. The division may also provide such applicants with the opportunity to submit their own cost proposals. If the proposals are not accepted, the division may then make an equivalent offer to, or allow cost proposals from, other applicants that have provided proposals in nearby or adjacent broadband serviceable locations, in order of highest scoring applicant.

Alternatively, or in addition to offering non-winning applicants an award, the division may allow applicants to submit a cost proposal to serve less than 100 percent of BEAD-eligible locations with priority broadband. The applications would then be re-ranked by the percentage of proposed BEAD-eligible locations out of the total in the project PAUs, and then by score. Awards may then be made to the highest-scoring application that proposes to exclude the fewest total BEAD-eligible locations, so long as the cost proposed is within the budget.

If no applicant is willing to accept the division's offer for end-to-end fiber for the remaining broadband serviceable locations, the division will then repeat the same process with applications for alternative technologies (such as coaxial cable or fixed wireless) that meet NTIA's definition of Reliable Broadband Service. Alternatively, depending on the number and location of the remaining eligible locations, as well as the available BEAD funding, the division may undertake to solicit additional grant applications for the remaining locations. The division's options for doing so will depend in part on the time available under the compressed timeline required by the BEAD requirements. This process may include revised Project Area boundaries, limitations to unserved locations only, or other variations.

If unserved and underserved broadband serviceable locations remain, the division may select an application using a technology that does not meet NTIA's definition of Reliable Broadband Service but fulfills the BEAD technical requirements.

Proposed Timeline of North Carolina Broadband Deployment Programs

The division is aware of NTIA's desire for eligible entities to complete challenge processes and subgrantee selection processes as soon as possible and prior to submission of the entity's final proposal 365 days following approval of Initial Proposal Volume II. The division is committed to awarding all available funds for successful broadband infrastructure deployment projects as quickly as possible while maintaining vigilant stewardship of taxpayer dollars and rigorous review of all projects to ensure that every North Carolinian has an affordable, reliable high-speed internet connection at the conclusion of the BEAD program. However, the division finds itself in a unique position where North Carolina must award and contract more than \$560 million in American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Funds (SLFRF) and Capital Projects Funds (CPF) in calendar year 2024 prior to defining BEAD eligible locations and ultimately obligating BEAD funding. Doing so is imperative as awarded locations from ARPA projects must be removed from BEAD eligible locations prior to the conclusion of the challenge process and the submission of BEAD eligible locations to NTIA for approval. Given the timing of the state legislative session and the awards from ARPA funding to be made, the division will run the challenge process and determine BEAD eligible locations in late 2024. Depending on the timing of NTIA approval of Initial Proposal Volume II, it may not be possible to complete subgrantee selection within 365 days from that date. Should this situation occur, the division will request a waiver or extension of NTIA timeline requirements for submission of the Final Proposal.

ARPA Programs

North Carolina intends to obligate all ARPA CAB and Stop-Gap Solutions funds by December 2024. Part of the CAB funds come from the CPF program and do not have a specific obligation deadline but must be spent by the end of 2026.

BEAD Program

January to August 2024

- Curing of Initial Proposal with NTIA
- Outline specific legislative changes needed to align state programs with BEAD requirements.

April to September 2024

- The division presents proposed legislative changes to the N.C. General Assembly intended to align state programs with BEAD requirements when the legislative session begins in April.

August to November 2024

- Implement Request for Qualification process: This prequalification process for potential BEAD vendors is phase one of the Subgrantee Selection process and will identify broadband providers eligible to participate in the BEAD last-mile deployment program.

September to December 2024

- Confirm ARPA-funded awarded and contingently awarded locations.
- Implement BEAD Challenge Process.

January 2025

- Await NTIA approval of the BEAD Challenge Process results and prepare to solicit project-level applications.

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

Primary Criteria 75% – For Priority Projects

Minimal BEAD Program Outlay. The total BEAD funding that will be required to complete the project, accounting for both total projected cost and the prospective subgrantee's proposed match (which must, absent a waiver, cover no less than 25% of the project cost), with the specific points or credits awarded increasing as the BEAD outlay decreases. In comparing the project's BEAD outlay and the prospective subgrantee's match commitments, Eligible Entities should consider the cost to the Program per location while accounting for any factors in network design that might make a project more expensive, but also more scalable or resilient.

The NOFO and Guidance state that Primary Criteria should be weighted at a minimum of 75%. The proposed Primary Criteria are weighted at 75%. The Primary Criteria are consistent with the BEAD NOFO in the following ways:

- Minimal BEAD Program Outlay is weighted at 50% and consists of the following:
 - a. Lowest cost per location weighted up to 25%
 - b. Match commitment as a percentage of the total project cost weighted up to 25%.
- Affordability is weighted at 15%.
- Fair Labor Practices is weighted at 10%.

The division proposes a scoring process to ensure the most cost-effective use of federal funds. Applicants may earn up to 100 total points for primary and secondary criteria. The scoring rubric will evaluate and assign a range and a score value for each of the following:

Low Cost per Location: The lowest cost per location (unserved households and unserved businesses) to be served by the proposed project.

Points Description/Rationale: The number of points an applicant can qualify for in this criterion prioritizes the maximum number of unserved locations at the lowest reasonable total project cost based on the proposed technology.

For hexbins that receive more than one application, 25 points for the lowest cost proposed for that unit, 15 points for the second lowest cost proposed for that unit, 5 points for the next lowest cost proposed for that unit, and zero points for any other applications received that propose higher costs. This sliding scale is designed to incentivize applicants to propose low costs for units that are likely to attract applications from multiple competing ISPs.

For hexbins that receive only one application, 20 points are automatically assigned to that application for that unit. This relatively high score is designed to incentivize applicants to include units in their applications that are less likely to receive interest from multiple potential applicants.

For purposes of this scoring criterion, each hexbin included in any given application will be scored and then the application assigned a score that is based on the total of all scores for all hexbins in the application, divided by the number of hexbins in the application.

Scoring for Multiple Applications for a single Hexbin:

Scoring Criteria	Points
Lowest cost proposed	25
Second lowest cost proposed	15
Third lowest cost proposed	5
Fourth lowest cost proposed and below	0

Scoring for a Single Application for a single Hexbin:

Scoring Criteria	Points
Single application	20

Match commitment as a percentage of project costs: With respect to the provision in which specific points or credits can be awarded if the BEAD outlay decreases, if an applicant is willing and commits in writing to provide more than the minimum match percentage, the Office proposes to provide more points for more match commitment.

Points Description/Rationale: BEAD requires that all applicants provide a minimum of 25% match of the total project cost. The division prioritizes a larger match commitment from an applicant by offering points if they are willing to commit to a higher match percentage.

Scoring Criteria	Points
50% or more of the total project cost	25

More than 25% but less than 50% of the total project costs	10
25% or less of the total project costs	0

Affordability; The prospective subgrantee's commitment to provide the most affordable total price to the customer for 1 Gbps/1 Gbps service in the project area.

The division proposes to evaluate the symmetrical gigabit speed tier package offered by a subgrantee and will assign a value based on a range of the non-promotional cost of service including all taxes, fees, and charges. Preference will be given to the gigabit speed tier package with lower costs. The proposed range in the scoring rubric was determined using data available from the FCC Urban Rate Survey. The most recent FCC US Benchmark Rate available from the FCC will be used for the subgrantee selection process.

Points Description/Rationale: The division will use the FCC US Benchmark Rate as a baseline for this component. The division will not require speed packages at a certain price point.

Scoring Criteria	Points
ISP commits to provide their lowest subscription cost for a symmetrical gigabit speed tier package offered to existing customers in the state to awarded locations and/or its lowest subscription cost for a symmetrical gigabit speed tier package for awarded locations is less than the FCC US Benchmark Rate.	15
ISP's lowest subscription cost for a symmetrical gigabit speed tier package is more than 100% of the FCC US Benchmark Rate and/or is not the lowest subscription cost offered for a symmetrical gigabit speed tier package offered to existing customers in the state.	0

Fair Labor Practices. Eligible Entities must give priority to projects based on a prospective subgrantee's demonstrated record of and plans to be in compliance with Federal labor and employment laws. New entrants without a record of labor and employment law compliance must be permitted to mitigate this fact by making specific, forward-looking commitments to strong labor and employment standards and protections with respect to BEAD-funded projects. This prioritization requirement is described in further detail in Section IV.C.1.e of the NOFO.

The NOFO requires a subgrantee to disclose any violations of labor and employment laws in the last three years, or written confirmation of no such violation. Based on Section IV.C.1.e of the NOFO, the division proposes to evaluate and assign a score of a subgrantee's demonstrated record of compliance with federal labor and employment laws.

This section will not preclude a subgrantee from eligibility or participation in the BEAD funded programs. The division will use publicly available resources from the U.S. Department of Labor, National Labor Relations Board, Office of Safety and Health Administration, and U.S. Equal Employment Opportunity Commission to verify required disclosures.

The BEAD NOFO specifically recognizes that requiring potential subgrantees to demonstrate past compliance with labor laws will "assist Eligible Entities in ensuring that a prospective subgrantee is capable of carrying out activities funded by a subgrant in a competent manner in compliance with all applicable federal, state, and local laws" (p. 56). Therefore, inclusion of state law is consistent with the NOFO. Wages and safety issues, which are a primary concern of the NOFO, are addressed in state laws such as the North Carolina Wage and Hour Act and the North Carolina Occupational Safety and Health Act. When the division asks applicants for the past 3 years of compliance records, it seems logical to include compliance with applicable state laws. Compliance with state labor laws will also be a binding term in contracts.

Violations Points Description/Rationale: The division prioritizes applicants that do not have a documented violation of labor and employment laws within the last three years in North Carolina. The division will require subgrantees to follow all applicable state and federal labor and employment laws and regulations and align with associated BEAD NOFO guidelines. The division will make compliance with applicable labor and employment laws part of the binding legal commitment with the subgrantee. The division will incentivize applicants by offering points to those that commit to one or more of the optional labor practices described in the Initial Proposal. New applicants will only be assessed on forward-looking commitments.

Existing providers:

Scoring Criteria	Points
Zero Violations within last three years	8
Resolved Violations within last three years	4
Active Violations within last three years	0

Optional Labor Practices Points Description/Rationale: The division prioritizes applicants that will commit to one or more of the optional labor practices described in the Labor Standards and Protection section of the Initial Proposal. An applicant's commitment to one or more of the optional labor practices increases the likelihood of compliance with federal labor laws. Applicants can commit to one or more of the following labor practices:

- Using a directly employed workforce, as opposed to a subcontracted workforce;
- 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;
- 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);
- Use of local hire provisions;
- Commitments to union neutrality;
- Use of labor peace agreements;
- 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);
- Use of an appropriately credentialed workforce (i.e., satisfying requirements for appropriate and relevant pre-existing occupational training, certification, and licensure); and
- Taking steps to prevent the misclassification of workers.

Existing providers:

Scoring Criteria	Points
Applicant commits to one or more specific optional labor practices	2
Applicant does not commit to any optional labor practices	0

New providers:

Scoring Criteria	Points
Applicant commits to one or more specific optional labor practices	10
Applicant does not commit to any optional labor practices	0

Secondary Criteria 25% - For Priority Projects

Speed to Deployment. All subgrantees that receive BEAD Program funds for network deployment must deploy the planned broadband network and begin providing services to each customer that desires broadband services within the project area not later than four years after the date on which the subgrantee receives the subgrant from the Eligible Entity. Eligible Entities must give secondary criterion prioritization weight to the prospective subgrantee's binding commitment to provide service by an earlier date certain, subject to contractual penalties to the Eligible Entity, with greater benefits awarded to applicants promising an earlier service provision date.

Points Description/Rationale: Established programs within the division require a subgrantee to construct and deploy broadband infrastructure within two years with a built-in extension of an additional year with a reason/rationale for the additional time. The division will require a schedule and timeline of activities during construction and prioritize construction and deployment taking less than the minimum four-year requirement in BEAD.

Scoring Criteria	Points
Construction completed within 24 months	5
Construction completed in more than 24 months and up to 36 months	3
Construction completed within the BEAD required 48 months	0

Additional Prioritization Factors. Eligible Entities may develop additional secondary criteria to be given weights that align with Eligible Entity and local priorities, subject to the requirement to give the greatest weight to the primary criteria and the approval of the Assistant Secretary in the Initial and Final Proposal process. In particular, NTIA encourages Eligible Entities to incorporate the following as selection criteria:

Equitable Workforce Development and Job Quality. NTIA encourages Eligible Entities to adopt selection criteria relating to the subgrantee's enforceable commitments with

respect to advancing equitable workforce development and job quality objectives, see Section IV.C.1.f of this NOFO.

Points Description/Rationale: The division proposes to assign points to applicants that provide a plan that is consistent with Section IV.C.1.f.

Scoring Criteria	Points
Plan provided	3
No plan provided	0

Local and Tribal Coordination. NTIA encourages Eligible Entities to adopt selection criteria reflecting a prospective subgrantee's support from the local and/or Tribal Government with oversight over the location or locations to be served.

Points Description/Rationale: The division proposes to assign points to applicants that provide a letter of support from local units of government such as a county or municipality, or a federally recognized tribal government. Local units of government and federally recognized tribal governments may support one or multiple applications. Letters of support must come from the local or tribal governments that express direct support for the proposed project.

Scoring Criteria	Points
At least one letter for support from a local unit of government or tribal government within the proposed project area provided	5
No letters of support received	0

Climate Resiliency Plan. Submittal of an approved Climate Resiliency Plan and explanation of how the plan was incorporated into the total project cost. Another section of this Initial Proposal provides a climate assessment of the state and the common environmental hazards for particular regions. The division proposes to offer points to applicants that can provide a detailed plan describing how the proposed network will mitigate climate hazards and the impacts to customers in the county of the proposed project area. The division proposes an approved plan would include at minimum the following:

- Identification of potential climate hazard(s) common in the proposed project area,
- Description of how the applicant will protect the network and infrastructure,
- Description for how the applicant will address the impacts to customers during a disruption of service in the event of a climate hazard,
- Description of how implementing the plan affects the proposed total project costs, and signed attestation that this plan is associated with the network design of the proposed project.

Scoring Criteria	Points
Applicant has submitted an approved Climate Resiliency Plan and explanation for how the plan was built into the total project cost	7
No Plan	0

Community Anchor Institutions. This scoring criteria assesses if an applicant has included eligible CAIs as published by the division within the project area as part of the application. Maximum points will be awarded to an application that proposes to serve all CAIs lacking quality broadband service included in the project area.

Scoring Criteria	Points
Proposed project plans to serve all eligible CAIs located within the project area	5
Proposed project does not plan to serve all eligible CAIs located within the project area	0

Primary Criteria 75% – For Non-Priority Projects (Other Last Mile Projects)

Minimal BEAD Program Outlay. The total BEAD funding that will be required to complete the project, accounting for both total projected cost and the prospective subgrantee's proposed match (which must, absent a waiver, cover no less than 25% of the project cost), with the specific points or credits awarded increasing as the BEAD outlay decreases. In comparing the project's BEAD outlay and the prospective subgrantee's match commitments, Eligible Entities should consider the cost to the Program per location while accounting for any factors in network design that might make a project more expensive, but also more scalable or resilient.

The NOFO and Guidance state that Primary Criteria should be weighted at a minimum of 75%. The proposed Primary Criteria are weighted at 75%. The Primary Criteria are consistent with the BEAD NOFO in the following ways: Minimal BEAD Program Outlay is weighted at 50% and consists of the following:

- a. Lowest cost per location weighted up to 25%
- b. Match commitment as a percentage of the total project cost weighted up to 25%.
 - Affordability is weighted at 15%.
 - Fair Labor Practices is weighted at 10%.

The division proposes a scoring process to ensure the most cost-effective use of federal funds. Applicants may earn up to 100 total points for primary and secondary criteria. The scoring rubric will evaluate and assign a range and a score value for each of the following:

Low Cost per Location: The lowest cost per location (unserved households and unserved businesses) to be served by the proposed project.

Points Description/Rationale: The number of points an applicant can qualify for in this criterion prioritizes the maximum number of unserved locations at the lowest reasonable total project cost based on the applicant's network design.

For hexbins that receive more than one application, 25 points for the lowest cost proposed for that unit, 15 points for the second lowest cost proposed for that unit, 5 points for the next lowest cost proposed for that unit, and zero points for any other applications received that propose higher costs. This sliding scale is designed to incentivize applicants to propose low costs for units that are likely to attract applications from multiple competing ISPs.

For hexbins that receive only one application, 20 points are automatically assigned to that

application for that unit. This relatively high score is designed to incentivize applicants to include units in their applications that are less likely to receive interest from multiple potential applicants.

For purposes of this scoring criterion, each hexbin included in any given application will be scored and then the application assigned a score that is based on the total of all scores for all hexbins in the application, divided by the number of hexbins in the application

Scoring for Multiple Applications for a single Hexbin:

Scoring Criteria	Points
Lowest cost proposed	25
Second lowest cost proposed	15
Third lowest cost proposed	5
Fourth lowest cost proposed and below	0

Scoring for a Single Application for a single Hexbin:

Scoring Criteria	Points
Single application	20

Match commitment as a percentage of project costs: With respect to the provision in which specific points or credits can be awarded if the BEAD outlay decreases, if an applicant is willing and commits in writing to provide more than the minimum match percentage, the Office proposes to provide more points for more match commitment.

Points Description/Rationale: BEAD requires that all applicants provide a minimum of 25% match of the total project cost. The division prioritizes a larger match commitment from an applicant by offering points if they are willing to commit to a higher match percentage.

Scoring Criteria	Points
50% or more of the total project cost	25
More than 25% but less than 50% of the total project costs	10
25% or less of the total project costs	0

Match commitment as a percentage of project costs: With respect to the provision in which specific points or credits can be awarded if the BEAD outlay decreases, if an applicant is willing and commits in writing to provide more than the minimum match percentage, the Office proposes to provide more points for more match commitment.

Points Description/Rationale: BEAD requires that all applicants provide a minimum of 25% match of the total project cost. The division prioritizes a larger match commitment from an applicant by offering points if they are willing to commit to a higher match percentage.

Scoring Criteria	Points
50% or more of the total project cost	25
More than 25% but less than 50% of the total project costs	10
25% or less of the total project costs	0

Affordability; The prospective subgrantee's commitment to provide the most affordable total price to the customer for 1 Gbps/1 Gbps service in the project area.

The division proposes to evaluate the symmetrical gigabit speed tier package offered by a subgrantee and will assign a value based on a range of the non-promotional cost of service including all taxes, fees, and charges. Preference will be given to the gigabit speed tier package with lower costs. The proposed range in the scoring rubric was determined using data available from the FCC Urban Rate Survey. The most recent FCC US Benchmark Rate available from the FCC will be used for the subgrantee selection process.

Points Description/Rationale: The division will use the FCC US Benchmark Rate as a baseline for this component. The division will not require speed packages at a certain price point.

Scoring Criteria	Points
ISP commits to provide their lowest subscription cost for a symmetrical gigabit speed tier package offered to existing customers in the state to awarded locations and/or its lowest subscription cost for a symmetrical gigabit speed tier package for awarded locations is less than the FCC US Benchmark Rate.	15
ISP's lowest subscription cost for a symmetrical gigabit speed tier package is more than 100% of the FCC US Benchmark Rate and/or is not the lowest subscription cost offered for a symmetrical gigabit speed tier package offered to existing customers in the state.	0

Fair Labor Practices. Eligible Entities must give priority to projects based on a prospective subgrantee's demonstrated record of and plans to be in compliance with Federal labor and employment laws. New entrants without a record of labor and employment law compliance must be permitted to mitigate this fact by making specific, forward-looking commitments to strong labor and employment standards and protections with respect to BEAD-funded projects. This prioritization requirement is described in further detail in Section IV.C.1.e of the NOFO.

The NOFO requires a subgrantee to disclose any violations of labor and employment laws in the last three years, or written confirmation of no such violation. Based on Section IV.C.1.e of the NOFO, the division proposes to evaluate and assign a score of a subgrantee's demonstrated record of compliance with federal labor and employment laws.

This section will not preclude a subgrantee from eligibility or participation in the BEAD funded programs. The division will use publicly available resources from the U.S. Department of Labor,

National Labor Relations Board, Office of Safety and Health Administration, and U.S. Equal Employment Opportunity Commission to verify required disclosures.

The BEAD NOFO specifically recognizes that requiring potential subgrantees to demonstrate past compliance with labor laws will "assist Eligible Entities in ensuring that a prospective subgrantee is capable of carrying out activities funded by a subgrant in a competent manner in compliance with all applicable federal, state, and local laws" (p. 56). Therefore, inclusion of state law is consistent with the NOFO. Wages and safety issues, which are a primary concern of the NOFO, are addressed in state laws such as the North Carolina Wage and Hour Act and the North Carolina Occupational Safety and Health Act. When the division asks applicants for the past 3 years of compliance records, it seems logical to include compliance with applicable state laws. Compliance with state labor laws will also be a binding term in contracts.

Violations Points Description/Rationale: The division prioritizes applicants that do not have a documented violation of labor and employment laws within the last three years in North Carolina. The division will require subgrantees to follow all applicable state and federal labor and employment laws and regulations and align with associated BEAD NOFO guidelines. The division will make compliance with applicable labor and employment laws part of the binding legal commitment with the subgrantee. The division will incentivize applicants by offering points to those that commit to one or more of the optional labor practices described in the Initial Proposal. New applicants will only be assessed on forward-looking commitments.

Existing providers:

Scoring Criteria	Points
Zero Violations within last three years	8
Resolved Violations within last three years	4
Active Violations within last three years	0

Optional Labor Practices Points Description/Rationale: The division prioritizes applicants that will commit to one or more of the optional labor practices described in the Labor Standards and Protection section of the Initial Proposal. An applicant's commitment to one or more of the optional labor practices increases the likelihood of compliance with federal labor laws. Applicants can commit to one or more of the following labor practices:

- Using a directly employed workforce, as opposed to a subcontracted workforce;
- 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;
- 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);
- Use of local hire provisions;
- Commitments to union neutrality;
- Use of labor peace agreements;
- 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);

- Use of an appropriately credentialed workforce (i.e., satisfying requirements for appropriate and relevant pre-existing occupational training, certification, and licensure); and
- Taking steps to prevent the misclassification of workers.

Existing providers:

Scoring Criteria	Points
Applicant commits to one or more specific optional labor practices	2
Applicant does not commit to any optional labor practices	0

New providers:

Scoring Criteria	Points
Applicant commits to one or more specific optional labor practices	10
Applicant does not commit to any optional labor practices	0

Secondary Criteria 25% - For Non-Priority Projects (Other Last Mile Projects)

Speed to Deployment. All subgrantees that receive BEAD Program funds for network deployment must deploy the planned broadband network and begin providing services to each customer that desires broadband services within the project area not later than four years after the date on which the subgrantee receives the subgrant from the Eligible Entity. Eligible Entities must give secondary criterion prioritization weight to the prospective subgrantee's binding commitment to provide service by an earlier date certain, subject to contractual penalties to the Eligible Entity, with greater benefits awarded to applicants promising an earlier service provision date.

Points Description/Rationale: Established programs within the division require a subgrantee to construct and deploy broadband infrastructure within two years with a built-in extension of an additional year with a reason/rationale for the additional time. The division will require a schedule and timeline of activities during construction and prioritizes construction and deployment taking less than the minimum four-year requirement in BEAD.

Scoring Criteria	Points
Construction completed within 24 months	5
Construction completed in more than 24 months and up to 36 months	3
Construction completed within the BEAD required 48 months	0

Additional Prioritization Factors. Eligible Entities may develop additional secondary criteria to be given weights that align with Eligible Entity and local priorities, subject to the requirement to give the greatest weight to the primary criteria and the approval of the Assistant Secretary in the Initial and Final Proposal process. In particular, NTIA encourages Eligible Entities to incorporate the following as selection criteria:

Equitable Workforce Development and Job Quality. NTIA encourages Eligible Entities to adopt selection criteria relating to the subgrantee's enforceable commitments with

respect to advancing equitable workforce development and job quality objectives, see Section IV.C.1.f of this NOFO.

Points Description/Rationale: The division proposes to assign points to applicants that provide a plan that is consistent with Section IV.C.1.f.

Scoring Criteria	Points
Plan provided	3
No plan provided	0

Local and Tribal Coordination. NTIA encourages Eligible Entities to adopt selection criteria reflecting a prospective subgrantee's support from the local and/or Tribal Government with oversight over the location or locations to be served.

Points Description/Rationale: The division proposes to assign points to applicants that provide a letter of support from local units of government such as a county or municipality, or a federally recognized tribal government. Local units of government and federally recognized tribal governments may support one or multiple applications. Letters of support must come from the local or tribal governments that express direct support for the proposed project.

Scoring Criteria	Points
At least one letter for support from a local unit of government or tribal government within the proposed project area provided	5
No letters of support received	0

- 1. Climate Resiliency Plan.** Submittal of an approved Climate Resiliency Plan and explanation of how the plan was incorporated into the total project cost. Another section of this Initial Proposal provides a climate assessment of the state and the common environmental hazards for particular regions. The division proposes to offer points to applicants that can provide a detailed plan describing how the proposed network will mitigate climate hazards and the impacts to customers in the county of the proposed project area. The division proposes an approved plan would include at minimum the following:
 - Identification of potential climate hazard(s) common in the proposed project area,
 - Description of how the applicant will protect the network and infrastructure,
 - Description for how the applicant will address the impacts to customers during a disruption of service in the event of a climate hazard,
 - Description of how implementing the plan affects the proposed total project costs, and signed attestation that this plan is associated with the network design of the proposed project.

Scoring Criteria	Points
Applicant has submitted an approved Climate Resiliency Plan and explanation for how the plan was built into the total project cost	7
No Plan	0

Speed of Network and Other Technical Capacities: This scoring criterion applies to non-priority projects only. This criterion assesses speeds, latency, and other technical capabilities of the technologies proposed. Priority will be given to technologies with greater ease of scalability with lower future investment and capital assets that have longer usable lives.

Scoring Criteria	Points
1 Gbps/1Gbps and maximum latency may not exceed 100ms	5
1000Mbps/500Mbps and maximum latency may not exceed 100ms	3
400Mbps/200Mbps and maximum latency may not exceed 100ms	2
300Mbps/150Mbps and maximum latency may not exceed 100ms	1
100Mbps/20Mbps and maximum latency may not exceed 100ms	0

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.

The division estimates based on the total BEAD funding allocation of over \$1.5 billion and cost estimates to provide fiber to the home (FTTH) to all eligible BSL and CAI locations in the state, that every unserved, underserved, and CAI will become served with investment of the BEAD funding allocation. The scoring criteria described in the deployment subgrantee selection section include incentivizing increased match percentages to maximize the reach of each federal dollar invested. In addition, the extremely high-cost threshold will be used to achieve the goal of universal coverage. The analysis supporting these estimates incorporates successful investment of ARPA funding that the division will complete in 2024 prior to awarding BEAD funding for eligible projects. The division must maximize investment of ARPA funding to unserved and underserved locations in order to achieve universal service, and the BEAD implementation timeline reflects the necessity of full and accurate ARPA implementation to achievement of that goal.

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.”

Not applicable.

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.

The division will work with applicants during the pre-qualification phase, subgrantee section phase, the award phase, and the post-award phase of the BEAD program to ensure that applicants and subgrantees are aware of applicable federal rules under the National Historic Preservation Act (NHPA) and the National Environmental Policy Act (NEPA), including any exceptions.

All selected project applications will be reviewed for NEPA analysis. The division proposes to develop an environmental assessment template, using template guidelines from NTIA, to guide applicants to comply with NEPA and any state environmental regulations. The environmental assessment documents will include a location map indicating the footprint of the project under review. Location markers such as street/road names and any natural features in the vicinity, such as wetland areas and streams, will be identified. The N.C. Department of Administration has a defined process through the State Environmental Review Clearinghouse (<https://www.doa.nc.gov/about-doa/special-programs/state-environmental-review-clearinghouse>) whereby relevant state agencies (such as the N.C. State Historic Preservation Office - <https://www.dncr.nc.gov/old-state-historic-preservation-office>) will have the opportunity to review and provide comments to the environmental assessment document. In addition, the division will ensure applicants include all relevant federal agencies and tribal governments to review and comment on the environmental assessment. Grant Agreements for awarded projects will address compliance requirements for NEPA and NHPA.

The division will also work with applicants during the prequalification phase, subgrantee section phase, the award phase, and the post-award phase of the BEAD program to ensure that applicants and subgrantees are aware of applicable federal rules under the Build America, Buy America Act (BABA) and any opportunities for waivers. During phase two of the Subgrantee Selection process as the division receives project applications, applicants will be asked to address their ability to comply with BABA. The division will also address compliance with BABA as a term and condition in the Grant Agreements.

Last-Mile Broadband Deployment Project Areas

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.

North Carolina's BEAD deployment projects will utilize hexbins to divide the state into hexagonal geographic units. The selection of hexbins as the geographic unit has been made with the aim of streamlining network design, expediting administrative processes, and ensuring all eligible locations within the state are covered through the BEAD program.

Under this approach, all hexbins that contain at least one BEAD eligible location will be available for BEAD deployment. ISPs will be required to serve every eligible Broadband

Service Location (BSL) in a hexbin (those that were identified by the State Challenge Process as unserved or underserved).

Applicants may choose the number of hexbins needed to form a project area, subject to the following criteria:

- Prior to accepting project applications, the division will publish guidelines for applicants aggregating hexbins. The guidelines will aim to ensure reasonable contiguity and adjacency of included hexbins.
- Some hexbins may be grouped by the division into larger, predefined project areas based on a clustering analysis, remoteness, financial viability, number of BSLs, proximity to adjacent cluster/grouping, and deduplication of existing federal, state, and local commitments. Applicants will be required to propose a project for the entire grouping in these instances.
- Applicants are encouraged to identify partners as needed to ensure that all eligible locations, (i.e., homes, businesses, multi dwelling units (MDUs), and CAIs) within their project areas can be served. For example, every unit of an MDU needs to have the proposed service available to it and to do so might require a partnership with a managed service provider.

Available hexbins will be available to view in a publicly facing interactive mapping tool. The geospatial file for project area units will also be made available.

The division will rank applications to deconflict overlapping project areas. When received, the division will score project applications using the appropriate scoring rubric for Priority or Other-Last Mile projects. Applications will then be ranked by technology first (i.e., fiber, followed by other Reliable Broadband Service technologies) and then by score. If the proposed project areas contain overlapping hexbins (i.e. one or more of the proposed project areas contain the same hexbins as another proposed project), the ranking will be used to prioritize among applications such that the highest ranked application will be awarded the overlapping hexbins so long as the proposed price is within the budget. The scoring rubrics that will be used are described above (see responses to “Describe how the prioritization and scoring process will be conducted and is consistent with the BEAD NOFO requirements on pages 42 – 46”). Following a preliminary award to the highest scoring project, the division will consult with the project applicant who was not awarded the overlapping units to determine whether and at what price they are willing to serve the hexbins that remain following assignment to another applicant of some of the hexbins in their proposed Project Area.

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 division does not plan to offer any inducements (matching funds or in-kind match) for hexbins that did not receive any project applications. Instead, following an initial selection of projects to be awarded, hexbins that did not receive an application will be identified. If the eligible locations are adjacent to (or nearly adjacent to) an awarded project or an existing provider, negotiations will be completed to include missing hexbins in an adjacent project or a

new project with an adjacent provider. The division may also engage in additional outreach to existing non-applicant providers to close these remaining coverage gaps to obtain sole source or negotiated proposals for the project area hexbins that did not receive an application. These proposals will be evaluated for conditional award.

The division will use a data-driven process and refine its approach if the competitive application results reflect the need for inducement. The division will only consider inducements if there are remaining eligible project locations not yet awarded after the competitive selection process and negotiations conclude. The state may consider using state resources for the purpose of inducements if needed to achieve universal service. When applicable, the division will detail its approach and ensure it is as transparent as possible.

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

The division will coordinate with federally recognized tribal governments to ensure it has accurate mapping of locations on Tribal Lands. These locations will be overlaid with application data to identify any applications that overlap Tribal Lands. The division will work with the federally recognized tribal government both in the application phase of these programs and the award phase to coordinate and ensure that any funded projects have consent to deploy from the tribal government.

Extremely High Cost Per Location Threshold

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 operational costs for the lifespan of the network.

The State of North Carolina is dedicated to meeting the 100 percent coverage goals of the BEAD program. Pursuant to the federal requirement as stated in the NOFO "to set the Extremely High Cost Per Location Threshold as high as possible to help ensure that end-to-end fiber projects are deployed wherever feasible," the division will prioritize an EHCPLT as high as feasible to ensure greater fiber coverage "and maximize use of the best available technology while ensuring that the program can meet the prioritization and scoring requirements."

The division will determine the EHCPLT once it has received all grant applications and will use it to efficiently allocate its BEAD funding based on the applications received. Based on both State and federal goals (and the federal requirement) to fund 100 percent of eligible locations, the EHCPLT will be set to enable maximum fiber coverage while also funding non-fiber technologies wherever necessary, to ensure fulfillment of the federal statutory goal of complete coverage of unserved locations, followed by underserved locations, and finally by CAIs.

To maximize the EHCPLT's value as a tool for determining where end-to-end fiber can be feasibly funded and where alternative technologies are more appropriate, the EHCPLT will be developed using the proposed grant funding amounts in the BEAD applications received as well as data collected by the division from other grant programs, such as the division's GREAT and CAB programs.

The division's cost model and other data may also inform the EHCPLT, particularly given that there may be some areas for which grant applications are not received. In addition, the EHCPLT may be adjusted during negotiations based on feedback and outcomes from the negotiation process.

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:

- a. The process for declining a subgrantee proposal that exceeds the threshold where an alternative technology is less expensive.**

The division will preliminarily assign non-overlapping Project Areas where the proposed project cost falls below the Extremely High Cost Per Location Threshold. The division will then start the deconfliction process for applications that propose to serve overlapping Project Areas, beginning with the highest-scoring application, where the proposed project cost falls below the Extremely High Cost Per Location Threshold. In the event the highest scoring application does not fall below the Extremely High Cost Per Location Threshold, the division will repeat the process with the next highest scoring applicant, until all locations have been preliminarily assigned. The division may offer applicants the opportunity to reduce their proposed costs below the Extremely High Cost Per Location Threshold.

The division will identify the remaining broadband serviceable locations that do not yet have a preliminary assignment and offer non-winning applicant(s) an award based on the original proposal and available budget for the revised area, so that amount does not exceed the Extremely High Cost Per Location Threshold. These offers would be made in order of highest scoring applications. The division may also provide such applicants with the opportunity to submit their own cost proposals. If the proposals are not accepted, the division may then make an equivalent offer to, or allow cost proposals from, other applicants that have provided proposals in nearby or adjacent broadband serviceable locations, in order of highest scoring applicant.

Alternatively, or in addition to offering non-winning applicants an award, the division may allow applicants to submit a cost proposal to serve less than 100 percent of BEAD-eligible locations with priority broadband. The applications would then be re-ranked by the percentage of proposed BEAD-eligible locations out of the total in the project PAUs, and then by score. Awards may then be made to the highest-scoring application that proposes to exclude the fewest total BEAD-eligible locations, so long as the cost proposed is within the budget.

If no applicant is willing to accept the division's offer for end-to-end fiber for the remaining broadband serviceable locations, the division will then repeat the same process with applications for alternative technologies (such as coaxial cable or fixed wireless) that meet NTIA's definition of Reliable Broadband Service. Alternatively, depending on the number and location of the remaining eligible locations, as well as the available BEAD funding, the division may undertake to solicit additional grant applications for the remaining locations. The division's options for doing so will depend in part on the time available under the compressed timeline required by the BEAD requirements. This process may include revised Project Area boundaries, limitations to unserved locations only, or other variations.

If unserved and underserved broadband serviceable locations remain, the division may select an application using a technology that does not meet NTIA's definition of Reliable Broadband Service but fulfills the BEAD technical requirements.

b. The plan for engaging subgrantees to revise their proposals and ensure locations do not require a subsidy.

An approximate EHCPLT will be estimated after all Priority and Other Last-Mile Project proposals are received and assessed and will be updated throughout the negotiation process. The division will determine whether the available BEAD funding is sufficient to expand high-speed internet to all unserved and underserved locations in the state at a reasonable cost. In the event there is a Priority Broadband Project that is above the EHCPLT, the applications will be considered after other proposals are reviewed and assessed. The EHCPLT could be utilized as a trigger for negotiations and a target to negotiate toward for deferred applications. During the negotiation process, the division may provide applicants an opportunity to revise the cost of their projects to reduce the subsidy required. The division reserves the right to conduct a validation of the proposed budget to ensure compliance with the BEAD program allowable expenses and that the quantities, prices, hours, and compensation rates proposed are reasonable and fair.

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

The division intends to prioritize projects and technologies that meet the definition of Reliable Broadband. However, the division recognizes there may be instances where the subsidy required to fund the broadband deployment project is not feasible. In the event there is no reliable broadband service technology that meets the BEAD program's technical requirements for a subsidy of less than the EHCPLT, the division will consider technologies that do not meet the definition of Reliable Broadband service but satisfy the technical requirements and are robust, affordable, and scalable considering the circumstances of the location. At a minimum, the technology must be able to provide internet service at speeds of 100/20 and latency less than or equal to 100 milliseconds at a lower cost. The division will consider technologies, such as satellite or unlicensed fixed wireless internet access, as a potential solution for the expansion of internet access and will reference NTIA guidance, leading practices, and successful deployments in other states and jurisdictions to determine how the program should be operated.

Deployment Subgrantee Qualifications

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 response 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.

The division will prequalify broadband providers for eligibility to participate in the BEAD program. In this pre-qualification process, respondents will provide required information on their financial, operational, technical, managerial capacity, among other requirements, to document that they meet stated requirements and demonstrate the ability to successfully deploy and sustain any future broadband infrastructure projects that may be awarded. Broadband providers will be vetted for multiple funding rounds at one time, reducing the need to submit duplicative information in future funding rounds.

During phase one of the Subgrantee Selection process (prequalification), respondents will be asked to provide information demonstrating financial solvency and capacity. The types of documentation required during the process will include the following:

- Audited Financial Statements
- Bankruptcy Information
- Commitment to Performance Security
- Current Grants
- Indebtedness
- Failure to Perform
- Organization charts identifying company structure such as parent company and any subsidiaries or affiliates that will perform work in North Carolina.

Financial solvency and capacity will be assessed based on the documentation described above. The office will utilize a risk management partner, KPMG, to analyze the information and provide a financial solvency and capacity review of individual respondents looking at areas such as profitability, liquidity, and leverage.

Sustainability will be assessed under both the financial solvency component and the operational component of the pre-qualification process. Business plans and their related analyses that demonstrate operational capacity will be required to be submitted under the operational component of the pre-qualification process.

During phase two of the Subgrantee Selection process, applicants will be required to provide documentation of proof of matching funds for any contingent project awards. The division will avail itself of the waiver options described for the letter of credit requirement in the Notice of Programmatic Waiver announced by NTIA in late 2023. The division will also continue to evaluate the number of grant awards made to any one broadband provider for risk factors related to the financial and operational capacity of the company.

Upon awarding a project to any broadband provider, a detailed Grant Agreement will be signed by both parties, Grant Agreements will include the following:

Document:	Document Description:
Agreement	Contract: Outlines the terms of the Agreement between NCDIT and the Grantee.
Exhibit A	NCDIT disclosures required by 2 C.F.R. 200.332 and 09 NCAC 03M.

Exhibit B	Scope of Services: Outlines the scope of the construction project, including the Project Budget.
Exhibit C	Project Milestones: Outlines the schedule and contents of reports that are due from the Grantee to NCDIT.
Exhibit D	Reporting Schedule for Progress Reports.
Exhibit E	Progress Report Template: Provides a template document for the Grantee to submit progress reports, including spending to date.
Exhibit F	Payment Process: Outlines the process for the Grantee to request reimbursements from NCDIT.
Exhibit G	Byrd Anti-Lobbying Certification.
Exhibit H	Key Personnel of the Grantee.
Exhibit I: Mapping Files	Data file (csv) and map that identifies approved locations for the grant project.

BEAD Grant Agreements will also include a requirement for the subgrantee to certify that it is qualified to meet the obligations associated with the project. The BEAD program will use fixed award subgrants, with progress reporting required on a quarterly basis, as a minimum. Progress reports shall include specific construction and service milestones. In each progress report, the division will require the subgrantee to certify that it has and will continue to have sufficient financial resources to cover its eligible costs for the project. Risk assessments of the grantees are utilized to inform frequency and type of monitoring required.

b. 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).

Initial Letter of Credit Requirement

The division will utilize guidance from NTIA on the letter of credit (LOC) requirements and will model the LOC for BEAD based on the Rural Digital Opportunity Fund (RDOF) LOC model. In accordance with the BEAD NOFO, the division will require applicants to submit a letter from an eligible bank (see 47 C.F.R. § 54.804(c)(2)) committing to issue an irrevocable standby LOC, that meets the BEAD LOC requirements, to the prospective subgrantee. The letter must be provided prior to entering any subgrantee agreement and provide the dollar amount of the LOC, amounting to no less than 25% of the subaward amount. Additionally, subgrantees must provide the division an opinion letter from legal counsel stating that in proceeding under Title 11 of the United States Code, 11 U.S.C. § 101 et seq. (the “Bankruptcy Code”), the bankruptcy court would not treat the letter of credit as property of the winning subgrantee’s bankruptcy estate under Section 541 of the Bankruptcy Code.

As of November 1, 2023, the NTIA published additional guidance regarding the LOC and Conditional Programmatic Waivers for the BEAD LOC. A Conditional Programmatic Waiver of the LOC is granted only to the extent to and as described:

Subgrantee Option to Use Credit Unions

The LOC Requirement that requires the use of a bank that meets the eligibility requirements of 47 C.F.R. § 54.804(c)(2) is waived if the subgrantee is using any United States credit union

that (a) is insured by the National Credit Union Administration; and (b) has a credit union safety rating issued by Weiss of B- or better.

Subgrantee Option to Use Performance Bonds

As part of the updated guidance, the division will permit subgrantees to use performance bonds. As such, the LOC requirement is waived where:

- During the application process, prospective subgrantees are required to submit a letter from a company holding a certificate of authority as an acceptable surety on federal bonds as identified in the Department of Treasury Circular 570 committing to issue a performance bond to the prospective subgrantee (Footnote: See <https://www.fiscal.treasury.gov/surety-bonds/list-certified-companies.html>. The letter shall at a minimum provide the dollar amount of the performance bond.)
- Prior to entering into any subgrantee agreement, each prospective subgrantee obtains a performance bond, acceptable in all respects to the division and in a value of no less than 100 percent of the subaward amount.

Where a subgrantee chooses to exercise the option to obtain a performance bond under this waiver, the requirement that the subgrantee “provide with its letter of credit an opinion letter from legal counsel clearly stating, subject only to customary assumptions, limitations, and qualifications, that in a proceeding under Title 11 of the United States Code, 11 U.S.C. § 101 et seq. (the “Bankruptcy Code”), the bankruptcy court would not treat the letter of credit or proceeds of the letter of credit as property of the winning subgrantee’s bankruptcy estate under Section 541 of the Bankruptcy Code” is waived.

Reduction of LOC/Performance Bonds Upon Completion of Milestones

The initial requirement of providing a LOC with a value of at least 25% of the subaward amount is waived, conditioned on the requirement that the subgrantee obtain a new LOC in a reduced amount upon achievement of specific deployment milestones that are publicly specified by the division and applicable to all subgrantees subject to the LOC Requirement. The division reserves the right to reduce the amount of the performance bond by a commensurate amount as grantees meet the same service milestones.

Subgrantee Option for Alternative Initial LOC or Performance Bond Percentage

The requirement that the initial letter of credit be for 25% of the subaward amount, or in the case where a subgrantee chooses to utilize a performance bond consistent with section 2.2 above, allow the initial amount of the performance bond to be lower than 100% of the subaward amount, where:

- The division issues funding on a reimbursable basis consistent with Section IV.C.1.b of the NOFO;
- Reimbursement is for periods of no more than six months; and
- The subgrantee commits to maintain a letter of credit or performance bond in the amount of 10% of the subaward until it has demonstrated to satisfaction of the division that it has completed the buildout of 100 percent of locations to be served by the project or until the period of performance of the subaward has ended, whichever occurs first. (Footnote: For the sake of clarity, the option to reduce the amount of the performance bond by a commensurate amount as subgrantees meet the same service milestones described in

section 2.3 may not be applied to a letter of credit or performance bond obtained under this section 2.4).

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

Subgrantees will be required to provide audited financial statements, as required by NTIA, as a part of the pre-qualification process. Submitted audited financial statements should date back three years from time of submission.

During the subgrantee selection process, applicants will be required to complete a pre-designed pro forma template provided by the division for project applications. In addition to this, they must include a budget narrative that explains the assumptions used in the pro forma and any expected financial challenges. The pro forma will require the applicant to provide anticipated capital expenditures (CapEx), operational expenditures (OpEx), projected number of subscribers (including unserved and underserved BSLs as well as any other potential subscribers), and service pricing as minimum requirements.

The pro forma in North Carolina will span a period of ten years, consisting of three years of historical data and seven years of projected financial data. This ten-year span will allow the division to evaluate the financial health of a proposed project. The division will scrutinize the pro forma to ensure that, using reasonable assumptions (e.g., achievable take rate and acceptable pricing), the subgrantee demonstrates positive cash flow within the ten-year time horizon.

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 response 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.**

For the BEAD program, managerial capability will be assessed as part of the pre-qualification process. Resumes for key management personnel will be collected and assessed for readiness to manage the proposed projects and ongoing services. Each resume should demonstrate relevant experience with broadband projects of similar scope and scale. The resumes and accompanying narrative will allow the division to assess the qualifications and experience of key personnel and ensure that they are well-equipped to deliver a successful broadband project.

During the pre-qualification phase, applicants will be requested to submit an organizational chart that includes all relevant personnel within the organization who are likely to have a role

on a potential broadband project, as well as an organizational chart that details the parent companies and its subsidiaries (as applicable).

The applicant will be requested to provide organization qualifications detailing prior experience with broadband/telecommunications deployment projects and other projects of a comparable size and scope. Each project experience description should include the construction cost, date of project start and completion, and the value that the applicant delivered to the project. Additionally, applicants will be required to provide a narrative about their organizational readiness to manage the proposed project.

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 response 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 are capable of carrying out the funded activities in a competent manner, including that they will use an appropriately skilled and credentialed workforce.**
- 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.**

The division will require potential applicants to demonstrate technical capability sufficient to deploy BEAD funded projects. During the pre-qualification phase, prospective subgrantees must submit certification to the division 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 use of an appropriately skilled and credentialed workforce, which will include certifying that they employ personnel with relevant certifications for deployment projects as mandated by state and federal law and reflective of industry practices. The relevant personnel may include a chief technology officer, project engineer, and contractor oversight team. Furthermore, applicants must certify that all contracted resources will possess the necessary skills and qualifications.

Applicants must also provide current licensing with government entities in NC and/or narrative of prior experience designing and delivering broadband projects. The division will evaluate these materials to confirm adherence to industry practices, as well as compliance with relevant state and federal law. This process ensures that all personnel, as well as contracted resources, are equipped with the necessary skills, qualifications, and certifications to successfully deploy broadband projects.

During phase one of the Subgrantee Selection process (pre-qualification), respondents will be asked to provide information around their company's approach to the following:

- High Level Network Summary

- Network Design for Grant Projects
- Network Development
- Network Construction
- Network Turnup / Operationalization
- Reliability and Repair
- Network Management and Security

During phase two of the Subgrantee Selection process, applicants will be required to provide details on the particular project(s) being proposed including information on network design, diagram, project costs, build-out timeline and milestones for project implementation, and a capital investment schedule demonstrating complete build-out and the initiation of service within four years of the date on which the entity receives the subgrant. The project applications will fold in requirements for proposed projects to be 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.

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 response 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 are capable of carrying 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.**

As part of the pre-qualification phase, each prospective provider will be required to demonstrate that it is capable of carrying out funded activities in a competent manner in compliance with all applicable Federal, State, Territorial, and local laws. To ensure that a provider complies with occupational safety and health requirements, it must permit workers to create worker-led health and safety committees that management will meet with upon reasonable request.

The BEAD program application guidelines will also reference required compliance with applicable federal, state, and local laws. Upon award of a project to any broadband provider, a detailed Grant Agreement will be signed by both parties and include reference to required compliance with applicable federal, state, and local laws.

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 response 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 they have provided a voice, broadband, and/or electric transmission or distribution service for at least two (2) consecutive years prior to the date of their application submission or that they are a wholly owned subsidiary of such an entity and attest 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.**

During phase one of the Subgrantee Selection process (prequalification), respondents will be asked to provide information to demonstrate operational knowledge, structure, and capacity by providing information on the following items:

- Contact information for Authorized Representatives
- Baseline Company Profile
- Billing and Operational Support Systems (B/OSS)
- Billing and Customer Data
- Federal Filing Status
- End User Support
- Human Resource Capacity

Information capturing experience in operational capabilities will be added to this section including years of experience in voice, broadband or electrical transmission/distribution; or demonstrated operational capabilities for new entrants.

Prospective subgrantees must certify during this prequalification phase that they possess the operational capability to qualify to complete and operate proposed projects. A prospective subgrantee that has provided a voice, broadband, and/or electric transmission or distribution service for at least the two (2) consecutive years prior to the date of its application submission or that it is a wholly owned subsidiary of such an entity, must submit a certification that attests to these facts and specifies the number of years the prospective subgrantee or its parent company has been operating. If the prospective subgrantee has operated only an electric transmission or distribution service, it must 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. For a new entrant to the broadband market, a prospective subgrantee must provide evidence sufficient to demonstrate that the newly formed entity has obtained, through internal or external resources, sufficient operational capabilities. Such evidence may include resumes from key personnel, project descriptions and narratives from contractors, subcontractors, or other partners with relevant operational experience, or other comparable evidence.

During the prequalification stage for subgrantees seeking to deploy broadband infrastructure, those who have previously provided voice and/or broadband service must certify that they have filed FCC Form 477s and the Broadband DATA Act submission, as applicable and required and complied with the Commission's rules and regulations. This certification will be asked for on the application form. Entities that are not required to submit FCC Form 477s and the Broadband DATA Act submission will not be penalized.

The division will verify with public records to confirm the dates of submission. Doing so ensures that prospective subgrantees have complied with FCC regulations before being considered eligible for broadband infrastructure deployment subgrant funding in North Carolina. Prospective subgrantees should also explain in the application, if applicable, any pending or completed enforcement action, civil litigation, or other matter in which it failed to comply or was alleged to have failed to comply with Commission rules or regulations.

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 response 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).**

During phase one of the Subgrantee Selection process (prequalification), as part of the operational component, respondents will be asked to submit a corporate organizational chart identifying the parent company and any subsidiaries or affiliates that will be performing work in North Carolina. Details will be added to this operational component to ensure this section aligns with all the information requirements in 47 C.F.R. § 1.2112(a)(1)-(7).

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 response 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.

During phase one of the Subgrantee Selection process (prequalification), as part of the financial component, respondents will be asked to submit information on any current broadband deployment grants and any publicly funded projects as outlined in requirements a. and b. above. The division also periodically collects mapping data from broadband providers operating in North Carolina, including data for publicly funded broadband deployment projects.

Prospective subgrantees seeking to deploy broadband infrastructure must submit a list of all publicly funded state and federal broadband deployment projects for which they or their affiliates have submitted or plan to submit an application, in addition to any publicly funded broadband deployment project that the applicant or its affiliates are undertaking or plan to undertake. This information will be requested as part of the prequalification materials. This includes all of the ARPA funded programs. During the prequalification phase, the division will confirm the completion and validity of this information.

When applicants apply for a specific project area(s), the division will consider the outstanding commitments and assess the applicant's capacity to meet those commitments, as well as their BEAD commitments. This consideration will be based on a holistic review of the application and the subgrantee's financial, managerial, technical, and operational capabilities. This comprehensive approach helps to ensure that all subgrantees are fully committed and able to deploy broadband infrastructure in North Carolina successfully. The division may ask for the following information:

- The speed and latency of the broadband service to be provided, as measured and/or reported under the applicable rules.
- Identification of the geographic area to be covered.
- The number of unserved and underserved locations committed to serve, or the relevant percentage if the commitment is to serve a percentage of locations within the specified geographic area.
- The amount of public funding to be used.
- The cost of service to the consumer.
- The matching commitment provided by the subgrantee or its affiliates.

Non-Deployment Subgrantee Selection (Requirement 9)

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.

The division plans to channel a significant portion of non-deployment funds through our existing Digital Equity Grant program. The Digital Equity Grant program has two different tracts: 1) Interagency Grants (for other N.C. state government agency entities as defined in [North Carolina's State Organization list](#)), and 2) Digital Champion Grants (for all other non-state agency entities including local governments, nonprofits, higher education institutions, and regional entities). Grant length and funding amounts will be determined once available non-deployment funding is finalized.

The Digital Equity Grant program ensures a fair, open, and competitive process in the following ways: all grant opportunities are adequately publicized well in advance of the opening date to give eligible subgrantees ample notice; competitively neutral evaluation criteria (as described below) are used to evaluate project proposals; and selections are made consistent with the publicized criteria and in a neutral manner. Furthermore, all State employees are required to comply with the North Carolina State Ethics Act, N.C.G.S. Chapter 138A, which prohibits the use of public position or public information for private gain, restricts gifts to state employees, and sets out standards for state employees to remove themselves from official actions when a conflict of interest arises. In addition, the division has a Conflict-of-Interest policy that addresses compliance with the State Ethics Act and specifically prohibits participation by employees in contracts or purchase orders on behalf of the State where the employee may have an interest. Abiding by the Conflict-of-Interest policy is a condition of employment. Adhering to publicized, neutral criteria in the selection process and complying with the State Ethics Act and Conflict of Interest policies will ensure that the division's processes for subgrantee selection in the Digital Equity Grant program are open, competitive, fair, and free from collusion or bias.

To identify and select subgrantees, the division will solicit applications from both state and non-state agencies. Applications must include one or more of the BEAD non-deployment activities (user training on digital safety, remote learning, telehealth, digital literacy, multilingual outreach, among other activities), and prioritize the covered populations as outlined in the Digital Equity Act. The application process and grant guidelines will closely mirror the division's already existing Digital Equity Grant program, which prioritizes the needs of covered populations. Past eligible entities have included: local governments (including local libraries, and K-12 school districts), non-profits, higher education institutions, regional entities (e.g., Regional Councils of Governments, and state agencies. The rubric the division currently uses to evaluate potential grantees will be amended for BEAD non-deployment activities but will likely be very similar. The rubric was developed in consultation with the N.C. Pandemic Relief Office as part of their grant management technical assistance to state agencies receiving COVID relief funding. The current rubric evaluates the applicant's proposal, including: the scope of the project, area and population served (how the project is meeting the needs of covered populations), intended outcomes and metrics, partners and local engagement, timeline, and budget.

To support digital equity and network resilience as part of the BEAD program, the division may use non-deployment funds to fund infrastructure in areas lacking quality cellular service. Quality service is defined as an industry standard of minimum 4G LTE service or equivalent, a

voice signal of sufficient strength, and should include scalability options compatible with emerging technologies. By promoting more resilient wireless services, the State of North Carolina will further bridge the digital divide by providing or improving access to people who choose to rely on their wireless devices, have not yet adopted fixed broadband, lack regular and adequate access to housing, or otherwise must continue to wait for fixed broadband networks to be deployed to their location to obtain and retain access to critical broadband services. Studies show that vulnerable or covered populations such as low-income and minority consumers as well as young adults rely on wireless networks for connectivity more than the general population.¹

Additionally, improving wireless networks offer critical network resilience and support for communities during natural or manmade disasters. In many cases, wireless connectivity will remain or will be restored more quickly when wireline infrastructure is disrupted due to such disasters, ensuring residents can stay connected to essential services, loved ones, emergency personnel, and real-time updates about local conditions. During these times, reliable wireless networks are also vital for emergency personnel to effectively plan and coordinate rescue and recovery efforts.

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.**

The engagement activities undertaken by the division as part of the digital equity planning process have provided a strong baseline of identified barriers to digital equity for general and covered populations. The division will ensure that all eligible non-deployment activities are meeting the barriers and needs identified through this process and as outlined in the North Carolina Digital Equity Plan which opened for public comments in December 2023 and was approved in March 2024.

The division will apply non-deployment funds to the activities identified in the BEAD NOFO as applicable. If remaining funds exist, the division will assess service gaps and develop a plan to execute programming that best supports statewide internet adoption, affordability, digital skills training efforts, and mobility coverage enhancements.

¹ See Pew Research, Mobile Fact Sheet (January 31, 2024) available at <https://www.pewresearch.org/internet/fact-sheet/mobile/?tabId=tab-011fca0d-9756-4f48-b352-d58f343696bf> (explaining research shows that low-income and minority consumers are far more "smartphone dependent" for online access than are other groups); See also U.S. Department of Health and Human Services - Centers for Disease Control and Prevention - National Center for Health Statistics (May 2023) available at <https://www.cdc.gov/nchs/nhis/erwirelessubs.htm> (finding that adults with family incomes below the federal poverty threshold [77.8%] and adults with family incomes of 100% to less than 200% of the federal poverty threshold [74.9%] were more likely than adults with higher family incomes [70.8%] to be wireless-only.)

The North Carolina Digital Equity plan outlines measurable objectives for each covered population. These objectives will be used as a point of reference when assessing how subgrantee applicants can meet the needs of residents within various localities. We expect to equally prioritize projects that address the following needs:

1. Internet affordability
2. Device ownership
3. Digital skills training including privacy and cyber-security
4. Online accessibility and inclusivity of online content

The division has conducted significant stakeholder engagement to understand the needs of covered populations by conducting 23 deep listening sessions in partnership with organizations serving covered populations, as well as nine public regional sessions, one in each economic prosperity zone and one virtual session. The division also analyzed county and regional digital inclusion plans covering 48 counties, received over 6,500 responses to the N.C. Digital Equity Survey, and identified 951 organizations providing 1,316 resources and assets to meet digital needs in the state. The division will ensure that all eligible non-deployment activities are meeting the barriers and needs identified through this stakeholder engagement process.

Utilizing ARPA funding, the division launched a two-phased digital equity grant program for state and local organizations. The division tracks Key Performance Indicators (KPIs), engages with stakeholders, and follows a clear project execution timeline. The goal is to empower grantees to expand or develop digital equity programs in communities. We have established KPIs, focusing on affordability, access, and digital skills training, and use these metrics to evaluate program success and impact. The division requires grantees to report on their KPIs and programmatic efforts quarterly, including their progress in serving specific populations. We prioritize equity and have gathered stakeholder feedback to enhance our grant-making and execution process and ensure our plans align with community needs.

Finally, the division will offer applicants the option to identify alternative approaches to non-deployment activities in the application process, such as non-deployment activities that:

- Promote deployment of Wi-Fi in eligible multifamily residential buildings
- Provide inside wiring and equipment in public housing, including Wi-Fi in common areas
- Provide device access and computer labs
- Device ownership programs
- Digital skills training and technical assistance
- Other projects that include deployment of Wi-Fi, mobile broadband, or other non-fixed infrastructure necessary to enable end-user benefits
- Low-cost or middle-class affordability plan options
- Investment in digitally delivered government services, and other innovative ideas.

Organizations are to demonstrate, using data, how covered populations are addressed.

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

Based on definitions used in the state's approved BEAD Initial Proposal Volume 1, North Carolina has 236,472 unserved broadband serviceable locations (totaling 259,322 units of both homes and businesses) and 178,669 underserved broadband serviceable locations (totaling 198,098 units of both homes and businesses). These totals do not include unserved or

underserved CAIs. The division will only pursue non-deployment activities once funds for unserved, underserved, and CAI locations are allocated, and additional funds remain available for non-deployment subgrantee selection.

The division's priority for BEAD funding is to expand high-speed broadband availability to the unserved and underserved locations and CAIs of the State of North Carolina. The division also believes the deployment of broadband across unserved and underserved areas must be coupled with non-deployment activities to ensure that the internet can be utilized in a meaningful, productive, and impactful manner. The division will not finalize subawards for Eligible Entity Non-Deployment Uses until subawards for broadband deployment projects are tentatively awarded and the state has confirmed all unserved and underserved locations and eligible CAIs will be served with high-speed, reliable broadband service.

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

The division will assess each grant application based on its proven experience and accomplishments including how covered population needs are addressed. The application will prompt the applicant to explain how it expects to accomplish the grant's objectives and what risks it sees in accomplishing the objectives.

Before entering into a subgrantee agreement, the division will ensure that prospective subgrantees:

- Can carry out activities funded by the subgrant in a competent manner in compliance with all applicable federal, state, and local laws;
- Have the financial and managerial capacity to meet the commitments of the subgrantee under the subgrant, the requirements of the Program and such other requirements as have been prescribed by the Assistant Secretary or the division; and
- Have the technical and operational capability to provide the services promised in the subgrant in the manner contemplated by the subgrant award.

The division will execute a grant agreement with each subgrantee to define the compliance requirements including all applicable federal and state laws as well as our division's monitoring requirements. Once an award is made, the division will conduct a risk assessment of the subgrantees.

Eligible Entity Implementation Activities (Requirement 10)

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

Activity: Challenge Process Development and Implementation

Description: Policy and GIS experts will design a robust and comprehensive challenge process based on the NTIA BEAD Model Challenge Process.

Intended Purpose: To allow for the efficient distribution of funding to ensure an evidence-based, fair, transparent, and expeditious process for units of local and tribal government, nonprofit organizations, and broadband service providers.

Activity: Subgrantee Selection Process Development

Description: Development and implementation of three statutorily created grant programs, detailed herein, including internal controls, guidance for applicants and post-award compliance and reporting.

Intended Purpose: Implement a subgrantee selection process that is fundamentally fair, open, and competitive to achieve 100% connectivity.

Activity: Broadband Mapping

Description: NC OneMap, an open-source, interactive GIS mapping tool, visualizes data collected by the state, as well as other resources related to broadband availability and adoption. <https://www.nconemap.gov/pages/broadband>

Intended Purpose: The mapping initiative helps identify unserved and underserved locations to more efficiently direct funding.

Activity: Affordable Connectivity Program Outreach

Description: Provides assistance, guidance, and promotional materials for families and community leaders. <https://www.ncbroadband.gov/technical-assistance>

Intended Purpose: Increase public awareness of the program and increase the number of eligible households enrolled in the ACP to 1 million (currently 858,921).

Activity: Technical Assistance Program / Community Broadband Planning Playbook / Digital Equity Technical Assistance

Description: The Technical Assistance Program provides North Carolina's communities with an on-the-ground resource for broadband expertise. The [Community Broadband Planning Playbook](#) provides the tools local governments need to help expand broadband access in their communities. The Digital Inclusion Plan Template and Guide helps communities create digital inclusion plans to reduce the digital divide and prioritize digital equity for their residents.

Intended Purpose: Community engagement and planning. Empowering local leaders to identify current broadband availability. Identify assets relevant to broadband deployment. Assist communities by simplifying the process of creating a digital inclusion plan and expediting the implementation of digital inclusion activities

Activity: Broadband Survey and Speed Test

Description: The North Carolina Broadband Survey is designed to gather information on locations in the state without adequate internet access and speeds.

Intended Purpose: The information gathered from the survey:

- Provides clear data to guide the investment of funds.
- Informs research and policy recommendations.

- Supports strategic targeting of additional funding streams.

Activity: Digital Equity Survey

Description: Data collection and planning.

Intended Purpose: Inform Digital Equity Plan.

Activity: Public Wi-Fi Mapping

Description: A web-based map and searchable list of public Wi-Fi access locations around the state reported to the division.

Intended Purpose: The resource provides teachers, students, and others without internet access a map to public locations where free internet access is available.

Activity: Community Engagement

Description: The division uses the BEAD and State Digital Equity planning grants to help fund local coordination efforts. The detailed local coordination plan that includes objectives, strategy, timeline, and tools is included in Appendix E, Five-Year Plan.

Intended Purpose: To ensure that the state's comprehensive plans to address high-speed internet access and digital equity are inclusive of all N.C. communities and populations' needs.

Activity: Workforce Development and Readiness

Description: The division will implement a Broadband Workforce Plan (Five Year Plan, Appendix F) that will use the services of a consultant to identify and analyze key occupations, conduct, and analyze results from convenings with key employers and labor union representatives to further hone skills, competencies, and credentials for key occupations, and conduct three to four structured interviews with key education and training leaders to create high-level understanding of current workforce development capacity for broadband jobs.

Intended Purpose: Using this information, the division will establish a vision and goals to meet broadband workforce needs, may develop and implement an employer survey to finalize skills, competencies and credentials for key occupations that will help workforce training providers, create an operational plan that supports critical N.C. broadband workforce needs with a focus on equity and access, and create a monitoring and evaluation plan.

Activity: Climate Assessment

Description: The division will work with the N.C. Office of Recovery and Resiliency in the N.C. Department of Public Safety as detailed in this document to assess and plan for climate related risks to new infrastructure projects.

Intended Purpose: Develop guidance for subgrantees to facilitate the mitigation of infrastructure and connectivity disruptions due to climate-related events.

Labor Standards and Protection (Requirement 11)

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 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 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.**

The division is committed to ensuring that all subgrantees align with its strategic objectives and core values, particularly in the areas of labor standards and safeguarding workers. In selecting prospective subgrantees, the division will follow a structured application and contracting process that ensures that it partners with entities that share its commitment to labor compliance. The subgrantee evaluation process outlined below will be tailored to meet the NOFO requirements, helping to ensure compliance with state and federal labor and employment laws throughout the phases of BEAD projects. Additionally, the division has included in its subgrantee scoring criteria "Fair Labor Practices". This criterion will assess a subgrantee's demonstrated record of compliance with state and federal labor and employment laws in North Carolina and their commitment to optional fair labor practices. Additional criterion detail can be found in the section "Requirement 8: Deployment Subgrantee Selection."

The division's selection process will require that applicants provide documentation describing their compliance with federal and state labor and employment laws during the prior three years. This approach will help the division evaluate the prospective subgrantees and mitigate the risk

of selecting noncompliant subgrantees to ensure that BEAD projects are carried out with the highest level of quality and compliance. New organizations without prior documented compliance will be evaluated based on forward looking commitments as explained in the Fair Labor Practice scoring criteria.

The selection process will require the following from subgrantees:

- Compliance Documentation: The application will require the subgrantee to certify its compliance with state and federal labor and employment laws. The division will require that an officer/director level employee (or equivalent) of the entity sign this documentation.
- Subcontractor Information: The division will require the subgrantee to obtain similar compliance certification from each existing and prospective subcontractor and contractor the subgrantee employs for the grant project.

The division aims to encourage a culture of compliance that extends throughout the entire organization.

The division will require prospective subgrantees to disclose any past violations. Specifically, subgrantees will need to provide written confirmation of any instances in the preceding three years where they, or their affiliated contractors or subcontractors, have violated regulations covered under the Occupational Safety and Health Act, the Fair Labor Standards Act, and/or any other relevant state or federal labor and employment law. This information will be requested in addition to prospective subgrantee's historical uses in contracting and subcontracting arrangements, including but not limited to staffing plans.

By requiring such disclosure, the division aims to create an environment where prospective subgrantees are forthcoming about past discrepancies, allowing the division to assess their track record and commitment to fair pay and a safe work environment.

As part of the application process, the division will require prospective subgrantees to submit a Monitoring and Compliance Plan outlining how they intend to monitor and ensure compliance with labor and employment laws, which should include a plan for ensuring compliance by their contractors and subcontractors. This requirement will help emphasize that the subgrantees' partners must also be committed to labor standards and safeguarding workers.

The division will require information from subgrantees as part of the subgrantees' Monitoring and Compliance Plans regarding the wage structures of employees who will be directly involved in the construction of broadband networks. Along with this information, prospective subgrantees will also be asked to provide information related to their labor and employment practices concerning wages and overtime payments.

To prioritize workplace safety, the division will require subgrantees to establish and maintain robust safety plans. These plans should include workplace safety committees that can identify and address health and safety concerns in the workplace or on worksites in connection with the delivery of deployment projects.

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 division will require that subgrantees follow all applicable state and federal labor and employment laws and regulations and align with associated BEAD NOFO guidelines. The division will make compliance with applicable labor and employment laws part of the binding legal commitment with the subgrantee, as well as any of the following optional practices the subgrantee commits to as part of its application:

- Using a directly employed workforce, as opposed to a subcontracted workforce;
- As set out in the BEAD NOFO, paying prevailing wages and benefits to workers, including compliance with Davis-Bacon and Service Contract Act requirements, where applicable according to total project cost;
- 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);
- Use of local and North Carolina based hire provisions; Commitments to union neutrality;
- Use of labor peace agreements;
- 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);
- Use of an appropriately credentialed workforce (i.e., satisfying requirements for appropriate and relevant pre-existing occupational training, certification, and licensure); and
- Taking steps to prevent the misclassification of workers.

Please refer to the subgrantee selection portion of this Initial Proposal for explanation of the scoring related to labor standards.

Workforce Readiness (Requirement 12)

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 must 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;**
- 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 (such as child care, transportation, mentorship, etc.), to attract, train, retain, or transition to meet local workforce needs and increase high-quality job opportunities;**
- 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; and**
- 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.**

North Carolina's Broadband Workforce Vision and Goals

North Carolina's BEAD workforce vision is to support a high quality, diverse workforce to effectively deploy universal broadband access across the state. Goals include:

1. Develop strategies to bolster the estimated 6,100 broadband jobs that will be created between 2024-2028.
2. Create a more diverse broadband workforce through the development of job quality and equity measures that can be used to set collaborative goals for broadband-related training.
3. Ensure workforce standards and federal employment requirements are satisfied in all subgrantee contracts.
4. Create a career pathway for the broadband sector that will communicate on-ramps and career advancement opportunities in the sector.
5. Develop fiber technician training capacity in at least three North Carolina community colleges that results in at least 630 credentialed fiber technicians.
6. Support broadband summer learning opportunities for high school students.
7. Continue the state's current broadband workforce advisory committee to act as a sector partnership that will continue to inform strategies and track progress toward the state's workforce goals.

Setting a Pathway to Achieve Broadband Workforce Goals

The division will undertake the following strategies to support achieving the state's broadband workforce goals.

Enforce Workforce Standards and Federal Employment Requirements

The division is committed to ensuring that all subgrantees align with its strategic objectives and core values, particularly in the areas of labor standards and safeguarding workers. In selecting prospective subgrantees, the division will follow a structured application and contracting process that ensures that it partners with entities that share its commitment to labor compliance. The subgrantee evaluation process will be tailored to meet the NOFO requirements, helping to ensure compliance with state and federal labor and employment laws throughout the phases of BEAD projects. Additional details are available in the Labor Standards and Protections section of the Initial Proposal.

Create a career pathway to map on-ramps to entry-level broadband jobs and career advancement opportunities.

The division asked the NCWorks Commission and the Piedmont Triad Regional Workforce Development Board to lead efforts to create a career pathway for the broadband sector that will recruit a more robust and diverse workforce to the sector. Located in the central part of the state, this local area workforce development board has experience partnering with the broadband sector, education, and community-based organizations to expand digital literacy in the region's workforce.

The development of the career pathway will follow national best practices, including: engaging with employers and education partners to map broadband sector entry-level jobs and training programs; identifying on-ramps for those jobs as well as career advancement opportunities; embedding stackable credentials within the pathway that lead to degree programs; creating strong visuals that illustrate the pathway in terms of jobs, wages, and job requirements; and developing template communication and marketing assets that use clear and culturally-responsive messaging that resonates with diverse populations. The career pathway will be adapted for use in other parts of the state by other workforce boards and education partners to aid in creating more on-ramps to the sector and improving digital literacy within the workforce.

Develop regional training hubs at community colleges to offer fiber technician credentials.

North Carolina has 58 community colleges, one of the strongest and largest systems in the nation. The N.C. Community College System will lead efforts to establish additional fiber technician training at its colleges. The labor market analyses and employer listening sessions conducted for this plan indicated that pre-employment training through community colleges will be a key factor to boost the talent pipeline and to create a more diverse workforce. More specifically:

- The N.C. Community College System will lead a process to engage with colleges to identify sites for augmented/new broadband training programs. They will be selected based 1) geographic diversity across the state, 2) partnerships with employers, 3) ability to create lab space required for the training; and 4) in some cases, leverage training for other sectors that may use some of the same equipment and expertise. The system has a track record of doing similar work for other sectors, such as the biotech manufacturing sector.
- Regional training hubs supported by this plan will primarily offer short-term entry-level fiber technician credentials that focus on safety, quality installation, and industry value. Priority will be given to credentials on the state's "credentials of value" list. NC Workforce Credentials are priority, non-degree credentials identified by the state that lead to family sustaining-wage careers as identified by a cross-sector partnership between the N.C. Department of Commerce, N.C. Department of Public Instruction (NCDPI), and the N.C.

Community College System. Credentials can be submitted for consideration and are added on a quarterly basis if validated and recommended by a statewide advisory council. Inclusion on the list also opens no-cost pathways for some students to earn the credential through financial aid for short-term credentials provided by the state under the Short-Term Workforce Grants program funded by the state legislature.

- Based on input from the education and training capacity scan, training cohorts should average 10 individuals. This plan anticipates each training hub will run between three and five training cohorts per year, with a total goal of 630 certified fiber technicians completing.
- Training hubs will also be available to broadband employers for post-employment training through, for example, incumbent workforce training resources offered by the N.C. Department of Commerce and the N.C. Community College System and in partnership with employers seeking additional skilling and re-skilling needs.
- The hubs will also seek to offer and/or connect individuals to utility locating training and certifications given the importance of identifying buried infrastructure prior to broadband deployment.
- Employers' roles: Securing qualified instructors to prepare fiber technicians is a challenge because state instructional salaries are not competitive with those of industry. This plan calls for industry partners to be central partners in identifying or providing instructors to teach the training courses. For example, recent retirees or contractors are often excellent instructors. North Carolina expects industry to be strong partners in fulfilling this component of the state's broadband plan. In addition, some employers may have physical facilities and consumable training materials that could be in-kind contributions. Articulating how a company will support the creation of a high quality and diverse broadband workforce by identifying instructors and by providing in-kind contributions to regional training hubs will be a component of broadband deployment proposals.
- Establishing and operating three training hubs over the five years will cost approximately \$2.2 million. (See budget in Appendix B.) This estimate includes start-up equipment and curricular costs, project management, instructor costs, training consumables, and tuition support for half of trainees. The N.C. Community College System will use BEAD planning funds to hire a community college-based project manager and lead instructor to coordinate the hubs and to train additional instructors in a train-the-trainer model.

Support a diverse workforce for the broadband sector.

The division will partner with community-based organizations to recruit and support diverse populations to complete fiber technician training at the regional community college training hubs described earlier. In partnership with employers, community-based organizations will 1) use the communications assets created as part of the career pathway development process, recruit students from underrepresented groups, including Black, Latino, and female residents, 2) as needed, provide training stipends, career readiness skills, and holistic supports such as child care vouchers, transportation, and emergency assistance, 3) offer case management services so that students have frequent and supportive connection to assistance from someone who can help them navigate supports they need in order to successfully complete their training. In addition, the division will encourage employers to undertake community outreach (e.g.,

career fairs, connections with local high schools, etc.) to broaden familiarity with the sector and to help recruit a more diverse workforce.

These are the evidence-based strategies needed to ensure equitable access to and completion of training programs that will ensure the state meets its target for individuals entering the broadband sector as credentialed fiber technicians with access to continued career advancement.

The division engages with two community-based organizations— El Centro Hispano and the Urban League of Central Carolinas, both of which have representation on the broadband advisory committee—and will continue to partner with them to implement the plan.

The estimated cost for these strategies is \$967,000 (see Appendix B) over the five-year period. One potential funding source for this portion of the plan is NextGen training dollars for opportunity youth, which are federal funds managed by workforce boards across the state. Other Workforce Innovation and Opportunity Act funds may also be used to support individuals in broadband training programs. In addition, collaborators may seek philanthropic support to fund this portion of the workforce plan, especially the holistic support and case management services.

Partner with school districts to create Career Accelerators and dual enrollment on-ramps to the broadband sector.

Using pandemic relief funds, the N.C. Department of Public Instruction (NCDPI) developed summer Career Accelerators to connect high school students to career opportunities through evidenced-based, high quality experiences. NCDPI will explore establishing a Career Accelerator training for rising senior and/or recent high school graduates at each of the regional training hubs at community colleges starting summer of 2024. Additional planning will take place in 2024 to determine if high school students are ready to complete the full fiber technician credential as part of the Career Accelerator or whether they will take an introductory curriculum that prepares them to later complete the full certification.

North Carolina has strong dual enrollment programs and funding support that enable many opportunities to earn college credit while in high school. Non-credit pathways are included in the state's dual enrollment framework, and NCDPI and the N.C. Community College System will work with local partners to establish a Career and College Promise pathway for each of the regional training hubs.

Similar to the regional training hubs, implementing plans for the Career Accelerators and dual enrollment pathways will require partnerships with broadband employers to identify and support qualified instructors to teach these programs.

Funding support for dual enrollment opportunities comes from the state's Career and College Promise funding program. There are also remaining pandemic relief dollars to support Career Accelerators in the summer 2024. After that, NCDPI and the division will look for sustainability partners to continue the program.

Promote pre-apprenticeships and apprenticeships.

There are currently pre-apprenticeship and apprenticeship programs in North Carolina for this sector, some of which are registered with the U.S. Department of Labor. The division will

encourage ApprenticeshipNC, the state apprenticeship agency, housed within the N.C. Community College System to promote these opportunities and look for opportunities to support their growth and development, particularly connecting more diverse candidates to these opportunities. Another area of emphasis will be encouraging employer partners to identify journeymen to support apprentices in the workplace.

Create a sector partnership to continue to support and monitor progress toward goals.

The division will collaborate with the NCWorks Commission, the state's workforce development board, to continue convening the current broadband advisory committee through 2025 to support and monitor progress toward goals and to drive and support implementation of the workforce plan. The advisory committee includes representation of labor organizations and community-based organizations to maintain worker voice throughout the planning and implementation process. The division will continually engage with this advisory committee, including stakeholders representing labor organizations and community-based organizations.

The composition of the committee comprises all the stakeholders needed for a sector partnership: employers, education partners, policymakers, labor organizations, and community-based organizations. The role of the committee will be to:

- align partners as the workforce plan is implemented;
- showcase workforce wins that can be emulated across the state;
- assess progress toward goals (see evaluation plan below) and refine strategies as needed, including any new opportunities that emerge; and
- develop a structure that may be sustained by partners beyond the parameters of the BEAD grant.

The initial focus of the advisory committee will be to:

- develop a resource/funding plan to implement key workforce plan components,
- help design and vet employer-led training curricula and credentials for the training hubs, and
- increase career awareness for the broadband sector.

The division will collaborate with the NCWorks Commission to determine the funding support necessary to take on this role.

Monitoring and Evaluation Plan

The division will annually evaluate progress on the workforce plan goals as part of its Key Performance Indicators. The evaluation will focus on the goals and metrics set out earlier in the plan. When it comes to the broadband-specific training offered through the regional training hubs described previously, the division will track traditional workforce development measures, job quality measures, and workforce equity measures.

Traditional Workforce Development Measures

For training offered through the proposed regional training hubs, the state will collect and track the traditional workforce development measures used for the Workforce Innovation and Opportunity Act (WIOA). The six core measures for adults are the following: 1) employment rate in the second quarter after program exit; 2) employment rate in the fourth quarter after

program exit; 3) median earnings in the second quarter after program exit; 4) credential attainment; 5) measurable skills gains; and 6) effectiveness serving employers.ⁱ

Using the core WIOA measures as a starting point will allow for the drawing of comparisons with existing workforce development programs. It also will help with program administration, as public agencies in North Carolina already have data tracking and reporting systems designed to capture that information. The use of such measures also will facilitate the use of any additional training funding that may be provided for broadband-related training from the NCWorks Commission.

Job Quality Measures

While traditional workforce development measures are uniform and standardized, they do not capture the quality of the jobs that program participants obtain.ⁱⁱ Yet job quality plays an essential role in determining whether a worker advances economically, commits long term to an employer, remains in a specific occupation, and continues to participate in the labor market.

In the process of developing the regional training hubs, the division will work with its training partners to develop and track performance indicators related to job quality. The general approach will be inspired by the job quality framework used by the Organization for Economic Co-Operation and Development (OECD)—a framework that uses multiple measures to assess three areas: earnings quality, labor market security, and workplace environment.

Given the limitations of existing performance reporting systems used in North Carolina, it may not be possible to apply the OECD framework directly, but by developing versions of these measures as part of the design process will allow for BEAD funding to help catalyze larger changes in how North Carolina assesses the success of workforce development programs.

Workforce Equity Measures

As noted previously, the current workforce in the broadband sector does not mirror the diversity of the state's larger workforce or population. At the same time, many existing data sources related to the labor market and workforce development programs do not capture enough data to meaningfully assess the equity impacts of various interventions. In the process of standing up the regional training hubs, the division will work to ensure that data systems capture the demographic information from participants needed to formulate equity goals, steer outreach, and track progress toward those ends. This will involve designing intake forms to capture key data like age, race/ethnicity, gender, geography, receipt of public assistance, limited English proficiency, and veteran status.

Once the division and its training partners establish what kinds of participant data can be collected, they then can work with the advisory committee to establish equity goals that could be achieved, such as setting targets for the number of women entering the broadband sector. A collaborative process will ensure that the selected metrics are shared by the state, training institutions, and industry, which will ensure that progress toward them can be made.

Describe the information that will be required of prospective subgrantees to demonstrate a plan for ensuring that the project workforce (including contractors and subcontractors) 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;**

Prospective subgrantees will be required to describe the mechanisms they will employ to guarantee an appropriately skilled workforce is used for the project. This could involve leveraging registered apprenticeships, joint labor-management training programs, or other training initiatives. The description should outline how these programs or mechanisms will ensure the workforce's skills are aligned with the project's requirements.

The division will encourage subgrantees to participate in registered apprenticeships and joint labor-management training programs but does not require this participation. The division will encourage prospective subgrantees to plan for an appropriately skilled workforce, an equitable workforce, and job quality through the BEAD program scoring criteria.

- 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;**

Prospective subgrantees will be required to specify the steps they will take to verify that workers have received the necessary occupational training and hold certifications or licenses relevant to their job functions. This will help ensure the workforce's qualifications meet the project's quality and safety standards.

- c. Whether the workforce is unionized;**

The division will not require that subgrantee workforces are unionized. Potential applicants may choose to disclose the union status of their workforce during the application phase. This information will contribute to an understanding of the potential for collective bargaining and other labor dynamics within the project.

- d. Whether the workforce will be directly employed or whether work will be performed by a subcontracted workforce; and**

Prospective subgrantees will be required to provide whether the workforce will be directly employed or subcontracted or a combination of both approaches.

- e. The entities that the proposed subgrantee plans to contract and subcontract with in carrying out the proposed work.**

Applicants will be required to provide all known entities they plan to engage through contracts or subcontracts to carry 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;**

Subgrantees will be required to provide a clear breakdown of job roles and the full-time equivalent (FTE) positions required for the project. This also includes roles within any contractor or subcontractor they employ. For example, if a subgrantee intends to hire ten broadband technicians and five network engineers, each role and the corresponding FTE must be specified.

- 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**

Safety and job quality are paramount for the division throughout the BEAD deployment lifecycle. Subgrantees, will be required to provide details during the application process on their 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) and how they plan to be engaged in a culture that prioritizes workforce safety and effectiveness. If any subgrantee's workforce is not unionized, the subgrantee may also provide with respect to the non-union workforce a project workforce continuity plan and the steps taken to ensure a safe and healthy workplace.

Subgrantees will also be asked to specify if they have an in-house training program. If so, they can provide details on how the program is linked to specific certifications and job titles.

- ii. Information on the professional certifications and/or in-house training in place to ensure that deployment is done at a high standard.**

Subgrantees will be required to provide the professional certifications held within their workforce and describe any internal training initiatives that augment quality standards and expertise in broadband deployment. Details of in-house training programs designed to enhance quality and deployment standards should also be provided.

Minority Business Enterprises (MBEs)/ Women's Business Enterprises (WBEs)/ Labor Surplus Firms Inclusion (Requirement 13)

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.

The division acknowledges the importance of investing in Minority and Women Owned Business Enterprises (MWBEs) and ensuring equity and inclusion in contracting opportunities for them. By leveraging the funding allocated for BEAD programs from the Bipartisan Infrastructure Law, the division is committed to establishing a strategy and process that would enable underrepresented groups equal opportunities to participate, work, and succeed in BEAD deployment ventures. Federal and state guidelines will be strictly followed, and MWBEs will be actively engaged through outreach efforts and capacity-building initiatives. We aim to foster an environment promoting Diversity, Equity, Inclusion, and Accessibility (DEIA) in the broadband industry and promote economic and employment growth in North Carolina.

Specifically and as certified herein, the division 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 steps outlined on pages 88 – 89 of the BEAD NOFO: (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists; (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources; (3) 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; (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; (5) 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; and (6) Requiring subgrantees to take the affirmative steps listed as it relates to its subcontractors.

The division seeks to leverage resources from the N.C. Department of Administration's Office of Historically Underutilized Businesses and other partnerships to improve contracting opportunities for firms in Labor Surplus Areas. Based on the latest FY 2024 list from the U.S. Department of Labor, 16 areas in North Carolina have been classified as "labor surplus areas" due to their average unemployment rate being at least 20% higher than the average annual civilian unemployment rate for all states (including Puerto Rico).

To promote DEIA in contracting and foster business growth among underrepresented groups, the division intends to implement an effective process, strategy, and data tracking methods. Existing partnerships and initiatives within the state will be utilized to achieve this goal. These include:

1. N.C. Historically Underutilized Businesses (HUB) Office²

In North Carolina, minority and women-owned business enterprises fall under the HUB Office, established in April 1999 under Executive Order 150. The HUB Office's mission is to promote economic opportunities for HUBs (referred to herein as HUBs or MWBEs)

² Office for Historically Underutilized Businesses, N.C. Department Of Administration, [Link](#)

in state government contracting and procurement, fostering growth, and profitability. In addition, the HUB Office has several other critical objectives, including:

- Increasing the amount of goods and services acquired by state agencies from businesses owned and controlled by HUB firms.
- Working towards eliminating barriers that hinder HUB firms' participation in the marketplace and in state government procurement and contracting.
- Encouraging purchasing officers and capital project coordinators within state agencies, departments, universities, and community colleges to identify and use HUB vendors, contractors, and service providers.
- Providing education to HUB firms on "How to Do Business" with the state of North Carolina.
- Providing resources for HUB firms to assist with their growth and expansion.
- The HUB Office's primary goals are to facilitate diversity, equity, and inclusivity in government procurement processes, further economic development, and build a strong, competitive vendor community for state agencies.

2. Recruitment and Certifications³

The N.C. Department of Administration (NCDOA) is responsible for overseeing the HUB certification, which provides greater exposure for business opportunities in state procurement and contracting. The names of HUBs are listed in the [Vendor Link System](#)⁴, which is widely used by state agencies, universities, community colleges, local schools, governments, institutions, and the public to locate HUBs for goods, services, and construction. The certifications and database can be leveraged to identify potential partners for subcontracting opportunities.

3. Prequalification and Selection

In compliance with state regulations and as part of its broader commitment to promoting equity and diversity in the business community, the division aims to support and promote the success of MWBEs. To this end, the division is dedicated to adhering to relevant provisions within North Carolina law, including but not limited to following:

N.C.G.S. § 143-48

Purchase and Contract: cooperation in promoting the use of small contractors, minority contractors, physically handicapped contractors, and women contractors.

N.C.G.S. § 143-48.4

Statewide uniform certification of Historically Underutilized Businesses.

Executive Order No. 25, November 2, 2017

Promoting state agency utilization of Historically Underutilized Businesses.

4. Monitoring and Tracking

The division, in collaboration with eligible contractors and other state entities, will

³ Office for Historically Underutilized Businesses, N.C. Department Of Administration, [Link](#)

⁴ Vendors List : North Carolina electronic Vendor Portal , [Link](#)

monitor and evaluate the participation of MWBE firms in the broadband deployment initiative. To increase MBE and WBE participation, the division will capture and track awards data (including subcontractor data) of MBEs, WBEs, and non-MWBEs. The division may also track broadband providers' outreach efforts to HUB-certified and other MWBE subcontractors.

5. North Carolina Disparity Studies⁵

Promoting MWBE's participation has been at the forefront of business inclusion practices for North Carolina, which has conducted various disparity studies. These disparity studies included a gap analysis and helped in assessing the availability and utilization of MBEs and WBEs as well as aided in identifying relevant evidence of race or gender-based discrimination in state contracting. In addition to existing disparity studies, the division has contracted with a policy analyst to research existing MWBE businesses in North Carolina that fall within commodity codes relevant to broadband deployment. This research should provide an overview of the availability of MWBE firms who could participate in BEAD deployment as subcontractors to known internet service providers within the state.

6. Outreach

The division will prioritize outreach efforts to maximize utilization of MWBEs in broadband deployment. Outreach will target internet service providers as well as MWBEs so MWBEs are aware of upcoming contracting opportunities. The division has consulted with NCDOA's HUB Office, which provided the following outreach suggestions:

- Encourage the use of "pre-bid meetings" to notify potential vendors of bid opportunities.
- Encourage internet service providers to post vendor opportunities on the HUB Office's online dashboard.
- Consider outreach to counties, community colleges, and local organizations who may be more familiar with local HUB vendors.
- Consider outreach via minority media outlets to advertise upcoming opportunities.
- Host an initial outreach meeting with HUB leaders in North Carolina to provide a broad overview of BEAD broadband deployment efforts and timelines.
- Host a "Meet the Purchaser" event for providers and HUB vendors to connect in person.
- Coordinate with the HUB Office to host a live demonstration of the HUB database for internet service providers.

7. Stakeholder engagement partner organizations

Beyond its own efforts, the division is planning to leverage state and local partner organizations, such as:

- a) **N.C. Minority Business Development Agency Business Center (NCMBDA)**⁶: The NCMBDA Business Center is operated by the HUB Office and offers multiple services including business development, consulting, contract opportunity sourcing, capital sourcing, trainings, capacity building, etc. for MBEs.

⁵ Disparity Study Reports, NCDOA's Office for Historically Underutilized Businesses (HUB), [Link](#)

⁶ N.C. Minority Business Development Agency Business Center, U.S. Minority Business Development Agency, [Link](#)

- b) **Carolinas-Virginia Minority Supplier Diversity Council (CVMSDC)**⁷: The CVMSDC is a private nonprofit organization that works with MBEs to promote equality and opportunities throughout the Carolinas and Virginia. It offers educational, networking, and business resources for its certified members. To qualify, businesses must be at least 51% owned and operated by an ethnic minority, including Hispanic/Latino-American, Asian-Indian American, African American/Black, Native American, or Asian-Pacific American.
- c) **The National Institute of Minority Economic Development, the Center for Entrepreneurship, the Women's Business Centers, and its affiliates**⁸. NIMED provides meaningful education and training, growth strategies and technical assistance for diverse businesses, women at various stages of business, and key stakeholders.
- d) **N.C. MWBE Coordinators' Network**⁹ The MWBE Coordinators' Network is committed to ensuring that all segments of the community have an equitable opportunity to participate in professional service contracts, procurement contracts, and construction projects, in both the public and private arenas.
- e) **United Minority Contractors of North Carolina (UMCNC)**¹⁰ The UMCNC Association provides access to education and training, business opportunities and supportive services, advocacy and serves as a liaison to industry leaders.
- f) **The Hispanic Contractors Association of the Carolinas (HCAC)**¹¹ HCAC is the only association in the Carolinas that focuses on providing solutions and driving Hispanic contractors to grow and succeed in construction.
- g) **Greater Women's Business Council (GWBC)**¹²: The GWBC is a nonprofit organization that certifies and works with WBEs in Georgia and the Carolinas. Businesses that are at least 51% owned by a woman or women may be eligible for this organization's WBE certification. As an affiliate of the Women's Business Enterprise National Council, this program offers significant support and resources for all certified members.

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:

- a. **Placing qualified small and minority businesses and women's business enterprises on solicitation lists;**
- b. **Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;**
- 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;**
- d. **Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises;**
- e. **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; and**

⁷ Carolinas-Virginia Minority Supplier Diversity Council, [Link](#)

⁸ [Programs to Enhance Your Businesses - The Institute \(theinstitutenc.org\)](#)

⁹ [N.C. MWBE Coordinators' Network \(mwbenetwork.org\)](#)

¹⁰ [Home - United Minority Contractors of North Carolina \(umcnc.org\)](#)

¹¹ <https://thehcac.org>

¹² Greater Women's Business Council, [Link](#)

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

YES, the division 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 above outlined on pages 88 – 89 of the BEAD NOFO.

Cost and Barrier Reduction (Requirement 14)

Identify steps that the Eligible Entity has taken or 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.**

During BEAD implementation, the division will use policies and practices to create efficiencies for infrastructure deployment like a state-wide “dig once” policy, tower leasing and coordinated permitting processes to expedite and reduce the costs of infrastructure deployment. In North Carolina, a majority of the highways and roadways are maintained by the N.C. Department of Transportation (NCDOT). Utility poles are predominantly owned by private and cooperative electric companies. These existing infrastructure assets will be relied on for the deployment of fiber optic cable and wireless equipment. Over the past several years, the division has fostered and relied on close coordination between NCDOT, electric utilities, and internet service providers during implementation of the state's broadband grant programs. These relationships successfully resulted in reduced costs and the identification of and removal of barriers. These established working relationships will continue to aid in efficient project execution during BEAD deployment.

Pursuant to Governor Cooper's [Executive Order 91](#), the division and NCDOT developed a [“dig-once” policy](#) to reduce repeated broadband installation excavations along state-maintained roads that are not part of the National Highway System. The policy requires internet service providers using conventional open-trench construction to provide notice of upcoming joint-trench opportunities through the division. To provide notice, internet service providers submit information about upcoming projects using a form on the NCDOT website.

In preparation for BEAD, the division began meeting monthly with the NCDOT Utilities Division to share broadband project information, coordinate right-of-way access and find ways to streamline permitting processes. It also works closely with NC 811 to educate stakeholders about permitting requirements and processes. Additionally, the division anticipates providing applicants with high-level permitting guidance in order to educate and support ISPs in preparing and applying for permits in North Carolina.

The division meets regularly with representatives of the major railroads in North Carolina to share information about anticipated projects and timelines as well. The division will host a webinar with railroad representatives in November 2023 to educate internet service providers

in the state about the railroads' permit application processes and how they could improve their applications to expedite the process and reduce deployment delays. Infrastructure deployment across railroad crossings continues to be a barrier to broadband expansion throughout the state. Internet service providers throughout the state have shared anecdotal evidence that the permitting process, permit fees and other expenses required by the railroads increase the cost of deployment significantly. The division plans to address this issue with the NC Railroad and freight rail companies.

Currently, North Carolina has a number of state statutes in place to reduce the costs and barriers to deployment, including:

- § 160A-272. Lease or rental of property
- § 146-29.2. Lease or interest in real property for communication purposes
- § 153A-459. County broadband acceleration
- § 160A-296.1. Facilitation of broadband deployment (30-day shot clock on approval of permits to access city right-of-way)
- § 117-28.1. Electric membership corporations; easements (to allow electrical easements to be used for the deployment of broadband infrastructure)
- § 62-350. Regulation of pole attachments

Specific capital project coordination to reduce the costs of deployment.

USDOT INFRA Grant: Funding will allow the widening of two interstate highways in rural eastern North Carolina. The grant will help North Carolina widen up to 25 miles of I-95 and upgrade interchanges, convert US-70 to interstate standards, enhance freight movement throughout the state, and install more than 300 miles of fiber cable and conduit to bring broadband and telecommunication service to many communities in eastern North Carolina. A total of \$147 million was awarded in 2018. As part of the state's US-74 Interstate designation, grant funds will allow for improvements to this east-west highway. The project includes plans to install approximately 300 miles of fiber optic cabling and conduit to accommodate smart transportation assets and to facilitate use by local internet service providers to provide broadband access to rural areas of the state.

Climate Assessment (Requirement 15)

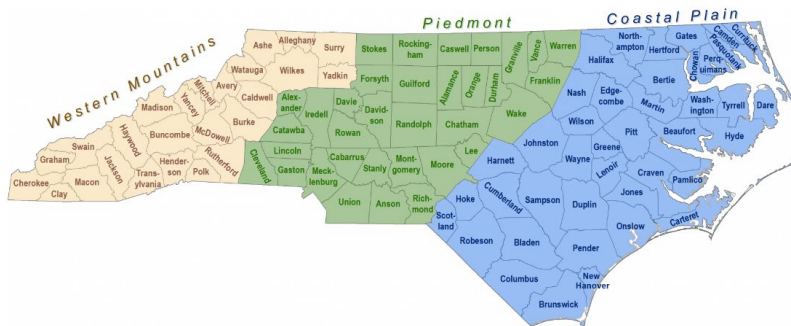
Describe the Eligible Entity's assessment of climate threats and proposed mitigation methods. If an Eligible Entity chooses to reference reports conducted within the past five years to meet this requirement, it may attach this report and must provide a crosswalk narrative, with reference to page numbers, 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;**
- 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;**
- c. Characterize any weather and climate risks to new infrastructure deployed using BEAD Program funds for the 20 years following deployment;**

- d. Identify how the proposed plan will avoid and/or mitigate weather and climate risks identified; and
- 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.

North Carolina, located in the southeastern region of the United States, is bordered by Virginia, Tennessee, Georgia, South Carolina, and the Atlantic Ocean. It ranks ninth in terms of population and twenty-eighth in terms of land area¹³. The state comprises the Appalachian Mountains in the west, the Piedmont Plateau in the central region, and the Coastal Plains in the east. Due to its varied geographical topography, there are significant temperature variations across the state, which makes North Carolina susceptible to a wide array of climate hazards.¹⁴

Figure: North Carolina Geographical Topography



According to the North Carolina Climate Science Report published in 2020, annual average temperatures in North Carolina have risen by 1° (Fahrenheit) since 1895. Relative to the current climate (1996–2015), the state's annual average temperature is very likely to increase 2°–10°F by the end of the century under various scenario analyses.¹⁵ Communities are already experiencing the impacts of these changes.

The coastal region of the state is particularly vulnerable. The sea level rose about 2 inches per decade on the northeastern coast of the state since 1978. Along the southeastern coast of North Carolina, sea levels have risen about 1 inch per decade since 1935.¹⁶ This change in ocean levels erodes beaches, washes away coastal infrastructure, submerges lowlands, and increases coastal flooding.¹⁷ These climate hazards are predicted to increase in frequency and intensity as temperatures continue to rise.

The division will consider climate hazards for broadband infrastructure deployment under the BEAD program. The approach will include identification of risk areas, determination of specific climate risks impacting those areas, and implementing the necessary mitigation strategies to address the risks. The division will invest in building resiliency in its broadband infrastructure, which will require additional expenditures to deploy efficient systems like backup networks, microgrids, etc.

¹³ [NCpedia](#)

¹⁴ [North Carolina - State Climate Summaries 2022 \(ncics.org\)](#)

¹⁵ [North Carolina Climate Science Report \(ncics.org\)](#)

¹⁶ [North Carolina Climate Science Report \(ncics.org\)](#)

¹⁷ <https://www.epa.gov/climate-indicators/climate-change-indicators-sea-level>

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.

The division conducted an initial hazard screening using the Broadband Climate Risk Mitigation Tool¹⁸ developed by the Center on Rural Innovation in the United States. The tool is designed to facilitate decision-making regarding broadband deployment and considers the various types of natural hazards and the different levels of climate risks associated with different counties throughout the state.

The tool assigns percentile scores to counties based on national percentile ranks, which helps assess geographical areas at risk for climate hazards. These ranks are derived from Expected Annual Building Loss Estimates found in the National Risk Index created by the Federal Emergency Management Agency (FEMA). Expected Annual Building Loss serves as a proxy for broadband infrastructure vulnerability and represents the average economic loss for the community in dollars resulting from natural hazards each year.

As a result of the hazard screening, the division identified geographies falling within the 80th percentile for risk scoring based on the Broadband Climate Risk Mitigation Tool. The tool classifies locations scoring higher than the 80th percentile risk score in the "Very High" category of climate hazard risk. Several counties in North Carolina, which spread across the state's varied topography, have a score that falls within or greater than the 80th percentile and are susceptible to different types of climate hazards such as hurricanes, ice storms, heatwaves, and wildfires.

¹⁸ [Broadband Climate Risk Mitigation Tool © 2023 Center on Rural Innovation Supported by Connect Humanity](#)

Table: List of counties with very high climate hazard risk		
Beaufort	Bladen	Brunswick
Buncombe	Cabarrus	Carteret
Columbus	Craven	Cumberland
Dare	Duplin	Durham
Forsyth	Gaston	Guilford
Harnett	Hertford	Hyde
Johnston	Lenoir	Martin
Mecklenburg	Moore	Nash
New Hanover	Onslow	Pamlico
Pasquotank	Pender	Pitt
Robeson	Sampson	Union
Wake	Wilson	

The division plans to perform this hazard screening on as needed basis to evaluate weather and climate-related risks.

The division plans to require BEAD subrecipients to provide climate resiliency and mitigation plans in identified geographical areas. In their proposals, BEAD subrecipients must submit an action plan that considers technology, design, and retrofitting measures for climate hazard events. This requirement ensures that proposals for broadband infrastructure projects in hazardous areas take appropriate and necessary steps to mitigate and manage the potential risks to the infrastructure and communities in the region.

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.

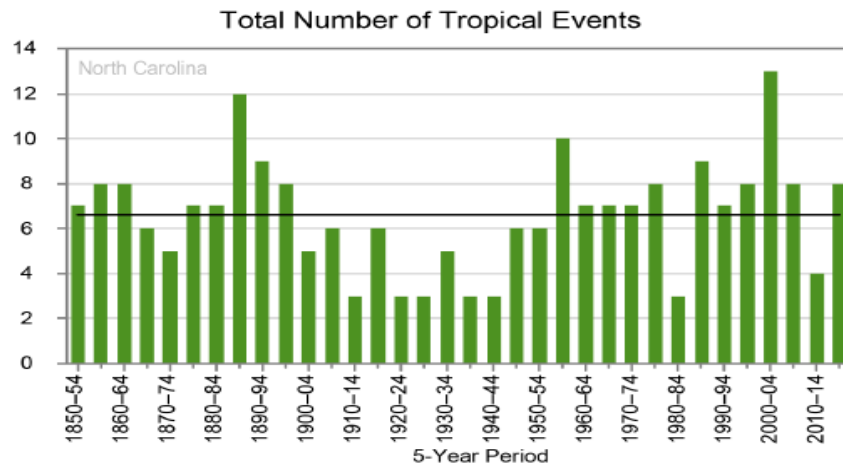
Due to North Carolina's geographical variability, the state identified a wide range of weather and climate hazards that pose a threat to broadband deployment. For the majority of these hazards, NCICS has carried out assessments indicating future projections till the year 2100 depending on the historical probability of events based on different pathways. The following climate risks are the most pressing and require attention and response over the relevant time horizon¹⁹:

- a. **Tropical storms and hurricanes** - North Carolina's coastal plain makes up 45% of the state's area, which increases the likelihood of hurricanes and storms, particularly affecting the central and eastern portions of the state. According to the National Oceanic and Atmospheric Administration (NOAA), North Carolina experiences a storm at hurricane intensity once every three years, on average. Additionally, severe storms can cause significant infrastructure damage similar to a hurricane. The following chart displays the total number of tropical storms and hurricanes passing near or over North Carolina. The long-term average for North Carolina is six tropical events per five-year period, as reported by the U.S. Geological Survey, N.C. Institute for Climate Studies (NCICS), and NOAA. With hurricanes passing near or over North Carolina, there is a high probability of heavy precipitation, which increases the potential for freshwater flooding in the state. The state

¹⁹ [North Carolina - State Climate Summaries 2022 \(ncics.org\)](https://ncics.org/2022/01/north-carolina-state-climate-summaries-2022/)

has developed a North Carolina Emergency Operations Plan (NCEOP) for hurricanes and coastal storms in December 2022.²⁰

Figure: Total Number of Tropical Events



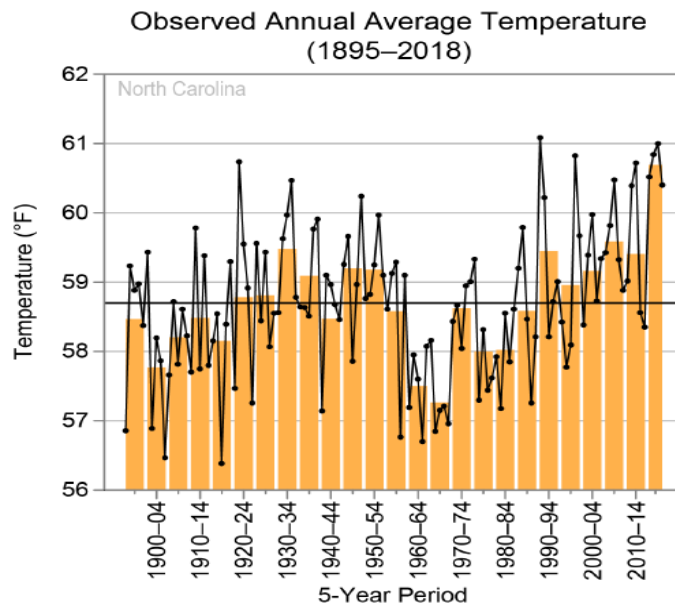
- b. **Temperature and Sea Level Rise** - The temperature in North Carolina increased by almost one and a half degrees Fahrenheit since the beginning of the 20th century. Since the 1970s, temperatures have been steadily rising, causing concerns about sea level rise in coastal areas due to the increased number of tidal floods that cause infrastructure damage. North Carolina has low elevation areas comprising half of its land area, half of which is at or below 500 feet above sea level, making it especially vulnerable to rising sea levels. The following figure displays the annual average temperature rise in North Carolina, indicating an overall trend of increasing temperatures. It is highly likely that summer heat index values will continue to rise in North Carolina. As per the North Carolina Climate Science Report, by 2050, models project that the annual average temperature in North Carolina will increase by 2°–4°F under a lower scenario (RCP4.5, where emissions increase at a slower rate) and by 2°–5°F under a higher scenario (RCP8.5, where GHG emissions continue to increase), compared to the average temperature for 1996–2015.²¹ The state has a Coastal Resilience Planning and Policy in place to trace any shoreline changes and associated aspects of sea level rise, and any adaptation strategies²²

²⁰ [NC Operation Plan- hurricanes and coastal storm](#)

²¹ [North Carolina Climate Science Report \(ncics.org\)](#)

²² [Coastal Resilience Planning and Policy | NC DEQ](#)

Figure Observed Annual Average Temperature



- c. **Ice Storms** - The western region of North Carolina comprises the Appalachian Mountains, which can receive an annual average of 100 inches of snowfall. The presence of the Appalachian Mountains in North Carolina can result in a phenomenon called cold-air damming, where a shallow layer of cold air moves southward across the Carolinas. The weather conditions associated with snow and ice storms can cause significant damage to broadband infrastructure, as they place extra strain on cables and increase operating and capital expenditures. These conditions make it essential to design and construct broadband infrastructure in these regions with careful consideration of environmental and climatic factors. According to the NC Climate Science Report, given the evidence currently available, there is low confidence concerning future changes in the number of ice storms. The state has a storm event database in place to track the storms.²³
- d. **Landslides** – Another issue in the western region of North Carolina is landslides. As the number of heavy precipitation events — defined as three inches or more in a day — increases, so does the number of landslides. A landslide can cause significant damage to broadband infrastructure, knocking out aerial cables, towers, and other critical infrastructure components. According to the Climate Risk Assessment and Resilience Plan, the NCDOT is carefully evaluating approaches to new designs and mitigation of landslides. The North Carolina Department of Environmental Quality (NCDEQ) has started to develop landslides related data using GIS-based mapping tools.²⁴
- e. **Wildfires** - The Bermuda High is a high-pressure system off the Atlantic coast that affects the summer climate of North Carolina. When the Bermuda High extends towards the coast, hot and dry weather follows, leading to heatwaves and droughts in the state. In the Piedmont region of the state, moderate or severe drought conditions can occur during these periods. Experts anticipate an increase in the severity of droughts in the state, making climate conditions more suitable for wildfires. North Carolina is positioned in the

²³ [Storm Events Database | National Centers for Environmental Information \(noaa.gov\)](https://www.noaa.gov/storm-events-database)

²⁴ [Landslides Hazard Website \(arcgis.com\)](https://arcgis.com)

region of the nation with the highest annual average number of wildfires in the continental United States.²⁵ These conditions can pose a threat to broadband infrastructure in affected areas of the state, making it crucial to consider the impact of droughts and wildfires in the development of broadband infrastructure in these regions. North Carolina is located in the region of the nation with the highest annual average number of wildfires in the continental United States.²⁶ These conditions can pose a threat to broadband infrastructure in affected areas of the state, making it crucial to consider the impact of droughts and wildfires in the development of broadband infrastructure in these regions. According to the NC Climate Science Report, the number of weeks with conditions conducive to very large fires is projected to increase more than 300% for the Coastal Plain by the mid-21st century under the higher scenario (RCP8.5). The North Carolina Forest Service works with local emergency management communities and fire departments to develop Community Wildfire Protection Plans (CWPPs).²⁷

Characterize any weather and climate risks to new infrastructure deployed using BEAD Program funds for the 20 years following deployment.

In line with the BEAD Program objective of expanding internet access to unserved and underserved locations²⁸, North Carolina will identify non-metropolitan areas outside of the metropolitan regions for broadband deployment. Further screening of climate hazard-prone counties identified counties that require additional attention and resources to mitigate potential risks to new infrastructure deployed using BEAD Program funds. The counties that fall within the 80th percentile or greater for risk scores are the focus of this effort. These counties include:

Table: Priority counties to consider for climate hazard for infrastructure deployment		
Beaufort	Bladen	Cabarrus
Carteret	Columbus	Dare
Duplin	Gaston	Harnett
Hertford	Hyde	Lenoir
Martin	Moore	Pamlico
Pasquotank	Pender	Robeson
Sampson	Wilson	

Most of these counties are in the eastern region of North Carolina. Therefore, it can be concluded that the primary climate risks related to new broadband infrastructure deployment in these counties are hurricanes, sea-level rise, and flooding. These risks can cause significant damage to broadband infrastructure and impact connectivity in the region, making it crucial to take appropriate measures and strategies to mitigate risks and ensure resilience of the infrastructure to protect public safety.

²⁵ [North Carolina Climate Science Report \(ncics.org\)](https://ncics.org/)

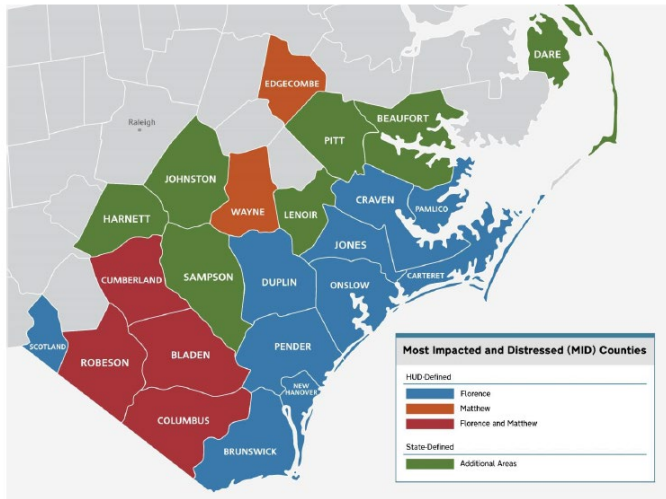
²⁶ [North Carolina Climate Science Report \(ncics.org\)](https://ncics.org/)

²⁷ [North Carolina Forest Service \(ncforestservice.gov\)](https://ncforestservice.gov/)

²⁸ [Broadband Equity Access and Deployment Program | BroadbandUSA \(doc.gov\)](https://www.broadbandusa.gov/)

Most Impacted and Distressed Counties

HURRICANES FLORENCE AND MATTHEW



**Note: State-defined MID counties (in Green) are currently not eligible for the Homeownership Assistance Program through the North Carolina Housing Coalition.*

Hurricanes Florence and Matthew hit North Carolina particularly hard, resulting in a host of counties becoming distressed and struggling to recover. The graphic shows counties that faced significant disruption as hurricanes damaged infrastructure, disrupted local businesses, and rendered vast swathes of these counties uninhabitable. The combined effect of Florence and Matthew has been devastating for these counties, highlighting the need to build resilience against such storms by constructing adaptive and robust infrastructure and implementing proactive response measures.

Coastal Risk

Hurricanes, storms, and resulting tornadoes can have a significant impact on broadband infrastructure. These events can disrupt broadband services due to flooding, power outages, loss of backhaul connections, damaging debris, and limited site access.²⁹ The strong winds and heavy rains associated with these weather events can cause damage to cables, towers, and other critical infrastructure components, frequently causing extended outages. In the aftermath of these disasters, restoring broadband services can be a complex and time-consuming process, requiring significant investment and technical expertise. These events make it necessary to formulate and implement disaster readiness and recovery plans to minimize disruptions caused by hurricanes, storms, and tornadoes in the deployment of broadband infrastructure.

Mountainous Region Risk

An increase in precipitation, whether in the form of rain or snow, leads to higher risks of flooding and landslides, which can impact underground and low-lying infrastructure, including broadband infrastructure. The stability of broadband infrastructure can be impacted as telecommunication lines are prone to damage or disconnection due to flooding. Additionally, increased precipitation can affect the radio spectrum on which wireless communications rely, leading to poor signal strength and limited connectivity. In uneven terrains, services may require the use of increased transmission power to withstand poor weather conditions, limiting their accessibility to users.³⁰ Therefore, it is essential to take into consideration the effects of increased precipitation, landslides, and flooding on broadband infrastructure and address these risks in the design and implementation phase of new broadband infrastructure deployment.

²⁹ [fcc.gov](https://www.fcc.gov)

³⁰ [climate-change-considerations-in-broadband-network-development-2023.09.11.pdf](https://www.ny.gov/document/2023/09/11/climate-change-considerations-in-broadband-network-development-2023.09.11.pdf) (ny.gov)

Specific Risks to Broadband Infrastructure

The following hazards could pose a risk to new infrastructure deployed using BEAD funds:

- **Increased Precipitation:**
 - Increased risk of flooding of low-lying infrastructure, access-holes, and underground facilities.³¹
 - Increased erosion, landslide, or flood damage to transport and backbone structures which may expose cables / trunk routes.³²
 - Reduced quality of wireless service with higher rainfall rates.
 - Increased flood risk to assets located in flood plains or urban environments (increase in flash floods), e.g., data centers, exchanges.³³
 - Increasing difficulty to repair faults and restore service with increasing volume of adverse weather-related problems.
- **Extreme Events:**
 - Increases in storm frequency or intensity increase the risk of damage to above-ground transmission infrastructure (masts, antennae, switch boxes, aerials, overhead wires, and cables), which are often final access connections to homes and businesses and may negatively impact telecommunications service delivery.³⁴
 - An increase in storm frequency could lead to more lightning strikes, which can damage transmitters and overhead cables, causing power outages.³⁵
 - Severe winds may knock off branches from trees or displace unfastened infrastructure causing outages and general damage.
 - Ice and sleet storms can cause power outages, impact telecommunication lines, and cause other infrastructure failures.³⁶
- **Wider Range of Temperatures:**
 - Increases in temperature and higher frequency, duration, and intensity of heat waves create an additional burden on keeping equipment cool in exchanges and base stations, resulting in increased failure rates.³⁷
 - Increases in mean temperature may increase the operating temperature of network equipment, leading to malfunction or premature failure if it surpasses design limits.
 - Increases in temperature can stress telecommunications equipment and infrastructure, reducing life span.³⁸
 - Freezing temperatures cause ice buildup on cables and power lines. This can cause damage and breakage of cables and can cut power to residents and businesses for

³¹ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³² Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³³ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³⁴ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³⁵ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³⁶ [North Carolina Hazard Analysis \(2019\)](#)

³⁷ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

³⁸ Horrocks, L, Beckford, J, Hodgson, N, Downing, C, Davey, R and O'Sullivan, A. (2010) Adapting the ICT Sector to the Impacts of Climate Change – Final Report, Defra contract number RMP5604. London: Defra from [Adapting the ICT Sector to the Impacts of Climate Change](#)

prolonged periods of time.³⁹

Identify how the proposed plan will avoid and/or mitigate weather and climate risks identified; and

Modern infrastructure development needs to consider the unprecedented complexity of disruptions caused by climate hazards. The N.C. Climate Risk Assessment and Resilience Plan, published in 2020, aims to address the impact of climate change⁴⁰ on communities and infrastructure vulnerability. The plan is a collaborative effort of policymakers and stakeholders to address the underlying stressors of climate change and increase the resilience of North Carolina.

The N.C. Climate Resilience Plan is based on several guiding principles, which include acting quickly to mitigate the impacts of climate change, developing equitable solutions for all communities, investing in the prosperity of communities, and implementing best practices⁴¹ that promote sustainable development. These principles help to ensure that the state's broadband infrastructure is designed and deployed in a way that minimizes vulnerability to climate change and other risks, ensuring long-term resilience and sustainability.

The state of North Carolina is actively focused on assessing risks, predicting extreme weather events, and improving responses to any such event.⁴² The state also considers future climate conditions and resiliency in all current public investment decisions at the local and regional levels by ensuring that agencies and contractors are held accountable for their response to climate hazards.

Aging infrastructure is an underlying stressor of climate change in North Carolina, and thus, it is essential to integrate climate resiliency in agency operations, location disaster recovery programs, and long-term planning. This will ensure that infrastructure remains stable and resilient in the face of climate-related hazards that can have a severe impact on communities and the state's economy.

The following are the key areas of focus for the division to enable the deployment of resilient broadband infrastructure:

- a. Collaborating with local governments to build resilience by instituting new policies and regulations and properly allocating resources to ensure that the deployment of broadband infrastructure is done in a manner that is resilient to climate hazards.
- b. Long-term master planning to determine cost-effective ways of addressing, maintaining, and operating resilient broadband infrastructure. Such planning can help identify innovative and cost-efficient solutions for building and maintaining resilient broadband infrastructure.
- c. Creating new and more strategically located facilities to mitigate the impact of natural disasters on broadband infrastructure. Doing so would enable communities to recover faster and minimize disruptions caused by climate hazards.
- d. Training stakeholders on mitigation plans for climate risks and preparedness measures, which would ensure that the personnel responsible for implementing and maintaining broadband infrastructure are aware of the risks and know how to act in the event of a climate-related disaster.

³⁹ Ofcom. (2011). Climate Change Adaptation: Impact on our functions. A Response to the Secretary of state's Direction of 31 March 2010. London: Author. Retrieved August 5, 2014, from [Overview of climate change impacts](#)

⁴⁰ [NC Climate Risk Assessment and Resilience Plan | NC DEQ](#)

⁴¹ [2020-Climate-Risk-Assessment-and-Resilience-Plan.pdf](#)

⁴² [Sandy_rev_v05 \(iscram.org\)](#)

Mitigation Measures for BEAD Program Infrastructure

The division understands the importance of climate mitigation measures to ensure long-term durability and resilience of broadband infrastructure. The division will require subgrantees to propose designs capable of withstanding climate threats and develop innovative elements that harden and provide redundancy to critical components for the state.

To achieve high-quality infrastructure, the division will require and assess specific mitigation measures while others will be required through a scoring process, prioritizing climate resiliency. Subgrantees must refer to the state's climate assessment, detailing common environmental hazards faced by different regions. Priority will be given to applicants who provide a comprehensive plan on how the proposed network will effectively mitigate climate hazards and minimize impacts on customers within the project area. An approved plan must outline potential climate hazards and demonstrate a solid understanding of the corresponding mitigation measures.

Resilient Design: In counties with identified elevated risk, subgrantees are encouraged to deploy resilient infrastructure that is less vulnerable to disaster damage. Examples of this strategy include elevating structures, employing wet and dry flood-proofing to improve flood damage resistance, deploying buried infrastructure, using wind bracing to improve structural wind resistance, and adding lightning protection to towers. Ongoing inspections of infrastructure before expected periods of harsher weather are encouraged to determine any necessary additions or restructuring. To further promote resilient infrastructure design, the division will incentivize its subgrantees to plan resilient designs to ensure the longevity and quality of service by including resiliency in its scoring criteria. Applicants will be scored on their plans for including network or power source redundancies, plans for retrofitting or hardening, and their use of buried fiber cables (especially in areas of identified elevated risk). Additionally, the division will encourage all subgrantee applicants to apply the following infrastructure resiliency and climate readiness measures by including climate resiliency plans as a scoring criterion :

- 1. Use of established plans and processes to deal with extreme weather-related risks:** The division will encourage its subgrantees to utilize the established climate hazard identifications and processes detailed in the N.C. Hazard Mitigation Plan (2019)⁴³ to prepare for and actively deal with extreme weather-related events during deployment. The division also encourages subgrantees to include how this plan and processes may be included in their description of risks and mitigation efforts in their subgrant applications. Subgrantees may also describe how they plan to use their own existing plans and processes related to addressing climate and weather-related risks for broadband infrastructure.
- 2. The speed of restoration of service in the case of an outage:** Subgrantee applicants should also include planned speeds of restoring service in case of an outage in their planned network design resiliency. Additionally, performance metrics related to speed of restoration will be defined in subgrant agreements. Broadband connection may be imperative during these times for contacting emergency services and reaching other necessary resources.
- 3. System Capacity, Redundancy, and Back-Up Features:** Subgrantees are encouraged to build and maintain critical infrastructure in areas of elevated risk that includes redundancy and additional hardening/resiliency. The design of broadband infrastructure should include back-up power options for vital operations and should be

⁴³ <https://www.ncdps.gov/20230125-2023-nc-shmp-final-publicpdf/open>

able to accommodate the full extremes of weather, temperatures, and other climate hazards. Subgrantees should also plan for including additional in-home or onsite back-up power resources.

4. **Retrofitting and Hardening:** The division is committed to advocating for broadband infrastructure that is resilient and sustainable, especially given North Carolina's susceptibility to a number of intense and damaging weather and extreme weather events. As such, the division will include in its scoring criteria a requirement for subgrantees to include in their network design how they will retrofit and harden new and existing infrastructure to meet or exceed industry standards.
5. **Choosing the appropriate technology platform:** Given the large amount of expected precipitation and other extreme weather events that may impact above ground infrastructure, it is imperative that subgrantees consider which technology platform is best to withstand the identified climate threats. Appropriate technology platforms may include buried underground infrastructure as it is resilient to risks such as tornadoes, intense storms (including ice), severe winds, and the wearing and damaging impact of extreme heat and cold. As part of subgrantee analysis of their proposed project area, subgrantees should, using their expertise, determine the most suitable technology platform for their infrastructure. This decision should be based on the climate risks of the region and justify reliance on alternative siting of facilities. Further, this choice should be included in subgrantees detailed approach to resilient design.

By actively motivating applicants through scoring to integrate infrastructure resiliency and climate readiness measures into their plans, the division seeks to fortify applicant's climate and weather resiliency strategies and support resilient broadband infrastructure, more prepared to withstand varying weather and climate conditions. Other subgrant considerations include North Carolina's incentive for climate consciousness. North Carolina procurement standards require agencies to give preference to products manufactured and services offered by facilities designated as clean corporate citizens (Part 14 of the National Resources and Environmental Protection Act). Further, the division will uphold the BEAD NOFO requirement for all subgrantees to determine whether a proposed project will occur in a floodplain.

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.

Climate change is leading to several hazards, and the state of North Carolina is implementing a mitigation strategy to minimize the impacts of such events. The hazard mitigation plan is updated by the state every five years⁴⁴ to ensure it remains relevant, up-to-date, and effective.

The North Carolina Department of Public Safety's (NCDPS) N.C. Office of Recovery and Resiliency (NCORR) and N.C. Division of Emergency Management (NCDEM) are responsible for keeping track of updates to the data available from national resources such as flood zone maps by FEMA, NOAA's Climate Explorer, and FEMA's National Risk Index, and updated climate projections from the State Climate Office of North Carolina and the National Climate Assessment. The NCDPS also updates the State Hazard Mitigation Plan (SHMP), which is revised every five years, in accordance with the guidelines established by the Federal Emergency Management Agency (FEMA)⁴⁵. This enables the division to identify new risk areas

⁴⁴ [Hazard Mitigation Plan Input | NC DPS](#)

⁴⁵ [Hazard Mitigation Planning for States \(fema.gov\)](#)

and update the mitigation and climate resiliency plan as a collaborative process to ensure that the infrastructure resilience plans remain relevant and effective.

By regularly monitoring and updating the hazard mitigation plan, the division can continue to refine its approach to climate resilience and mitigate the risks associated with climate change effectively for implementation of the BEAD program. Doing so will help to ensure that the state's broadband infrastructure remains reliable and resilient, even in the face of increasingly frequent and severe climate hazards.

Low-Cost Broadband Service Option (Requirement 16)

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.**

For all BEAD funded programs, the division will require subgrantees to offer a low-cost service option available to all eligible households (based on Affordable Connectivity Program (ACP) eligibility criteria) in the project areas for at least the length of time compliant with BEAD requirements as defined by NTIA.

The division will require applicants for subgrants to propose a low-cost service option to the division and provide a detailed justification that the proposed service option is reasonably affordable to all eligible households in the proposed BEAD project area. The low-cost option shall be offered at a price that does not exceed the highest price listed in the FCC's 2024 Urban Rate Survey data for Fixed Broadband Service for a service offering in North Carolina that provides a download speed of 100 Mbps, upload speed of 20 Mbps, and an unlimited capacity allowance. A proposed low-cost option below this price will presumptively be approved; except if an applicant currently provides service in the state, the applicant shall offer the low-cost broadband service option at a price that does not exceed the lowest price they currently offer for 100/20 Mbps service (as long as that price does not exceed the Urban Rate Survey price described above). Additionally, NCDIT encourages applicants to include in their applications planned methods of promoting the low-cost option as well as confirm that those interested in the low-cost option are not met with excessive difficulties in finding and selecting the option. The applicant must make its proposed low-cost service option available to all eligible households in all of the applicant's awarded projects under the BEAD program. A subgrantee may adjust the price of its low-cost service offering once a year based on the Consumer Price Index according to the U.S. Bureau of Labor Statistics.

Additionally, the applicant must certify:

- The applicant will not assess installation fees or other non-recurring charges to eligible households adopting the low-cost service option.
- The end user must be allowed to apply the ACP benefit subsidies to the service price.
- The low-cost service option must meet performance requirements established by the BEAD program, with download speeds of at least 100 Mbps and upload speeds of at least 20 Mbps.
- The low-cost service option must provide typical latency measurements of no more than 100 milliseconds.
- The applicant may not subject the eligible household to data caps, surcharges, or usage-based throttling, and the low-cost service option must be subject only to the same acceptable use policies applied to subscribers of all other broadband internet service plans offered to home subscribers by the applicant.
- If the applicant later offers a low-cost plan with higher download or upload speeds, eligible households that are subscribed to a low-cost broadband service option must be allowed to upgrade to the new low-cost offering without a nonrecurring charge or penalty.

The division based this expectation on the low-cost broadband service offering in part on the \$30 monthly price many providers offered in conjunction with their participation in the FCC's ACP. This decision was also informed by results from a division state-wide survey showing that 25% (212 out of 833) of low-income respondents consider the highest affordable rate for broadband service to be no more than \$30 a month.

Subgrantees are required to participate in the FCC's ACP or any successor program that may be established and ensure that prospective customers are aware of ACP availability for the low-cost service option. If ACP eligibility criteria change in the future, subscribers in BEAD-funded eligibility that participate in the ACP or who meet any ACP eligibility criteria must have the ability to benefit from both the ACP subsidy and the low-cost service option. Subgrantees are required to participate in any successor broadband subsidy program if Congress ceases to fund the ACP or the program otherwise expires. Barring a successor program, subgrantees will be required to continue offering the low-cost service option to, at a minimum, customers who meet the ACP eligibility criteria. If Congress ceases to fund the ACP or the program otherwise expires, and the federal government does not create a successor program or issue new criteria for eligible households, the division will propose new criteria for determining eligible households and publish such criteria for public comment for no fewer than 30 days before issuance.

If the ACP or any successor programs are no longer available, the low-cost option must still be made available to those previously eligible for ACP at the rate submitted to and approved by the division using the selection criteria described above.

The division strongly encourages subgrantees to offer the subgrantee's low-cost broadband service option to all eligible households that are prospective customers across the subgrantee's entire North Carolina service territory; however, this service option must at least be available to all eligible households within all awarded project areas under the BEAD program.

Certify that all subgrantees will be required to participate in the Affordable Connectivity Program or any successor program.

The division certifies that all subgrantees will be required to participate in the Affordable Connectivity Program or any successor program.

Middle-Class Affordability Plans (Requirement 20)

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.

The BEAD NOFO encourages eligible enterprises to establish a proposal that not only targets broadband infrastructure investment and low-cost service options but also contemplates methods to guarantee that every user can access high-speed internet that is reasonably priced.

The division acknowledges the importance of implementing a comprehensive affordability strategy that can benefit the maximum number of North Carolina residents. A multifaceted approach centered on the specific needs and opportunities available in North Carolina will enable the division to accomplish this objective. The division anticipates that it may entail collaboration with public and private stakeholders to harness existing resources, review alternative business models, and identify funding sources that promote digital equity initiatives geared towards underserved communities. The division remains committed to developing a comprehensive affordability strategy that ensures all North Carolina residents have access to affordable and reliable high-speed internet, which is critical to the state's long-term economic growth and prosperity.

The division acknowledges the significance of modeling plans and policies based on best practices that align with households in North Carolina. Though the NTIA does not specify required affordability levels, especially for middle-class households, numerous groups endeavored to provide guidance and data to help decision-makers measure affordability. The division pledges to utilize this data and guidance while addressing broadband affordability in North Carolina. Staff will scrutinize the state's present affordability setting, evaluating factors such as service prices, usage patterns, and income distribution, among others. With this data-driven method, the division can develop policies and programs that sufficiently address the needs of North Carolina residents.

1. In 2016, the Federal Communications Commission (FCC) defined a benchmark for reasonable rates for residential broadband service as "2% of monthly disposable household income⁴⁶." The FCC further describes the 2% threshold as a "clear yardstick for charting changes, not as an inherently meaningful level."
2. In 2023, Pew Charitable Trusts (Pew) examined affordability by geographic region, assuming middle-class household income was between \$40,000 and \$150,000 nationally. With that standard, the nationwide median affordability standard is \$93.21/month⁴⁷. The division recognizes that the median income varies across the state and reviewed county specific data related to this research.

⁴⁶ <https://docs.fcc.gov/public/attachments/FCC-16-38A1.pdf>

⁴⁷ <https://www.pewtrusts.org/en/research-and-analysis/articles/2023/08/30/is-broadband-affordable-for-middle-class-families>

3. BroadbandNow research provides broadband pricing, collecting data from the FCC, Census Bureau, and directly from internet service providers. The data provides some visibility into provider broadband pricing and is available for download⁴⁸.

The median household with an income exceeding \$60,500 per annum in North Carolina⁴⁹ spends around \$95 per month on broadband⁵⁰, equating to less than 2% of their income in 2021. Although publicly available broadband pricing data in North Carolina are insufficient, the primary affordability challenge aligns with the goal of increasing participation rates in the ACP and Lifeline program to ensure broadband's affordability to all North Carolina residents – and ensuring continued funding exists to maintain the ACP as a federal benefit.

The division seeks to examine pricing practices continually and endeavor to influence them to avoid situations where broadband service prices exceed affordability levels, regardless of whether ACP is available and for which households affordability is being considered. The division acknowledges potential affordability challenges for non-ACP eligible households where the lowest-priced broadband service may be more than 2% of their income. Similarly, ACP-eligible households may surpass the 2% income threshold after accounting for many out-of-pocket costs. The division will evaluate and monitor affordability problems regarding broadband pricing regularly to ensure that affordable high-speed internet is accessible to all North Carolina residents.

Middle-Class Affordability Planning Components

The division plans to leverage a multi-pronged approach. Each component is described in more detail below.

- The division will require BEAD subgrantees to provide progress reports of their BEAD implementation. This approach will involve analyzing progress and ensuring it fulfills objectives while consistently enhancing the procedure through information collection, stakeholder feedback, and industry trends. Among the reporting requirements with which BEAD subgrantees must comply is the disclosure of their broadband pricing options (inclusive of fees and other charges) at full price, excluding discounts. This requirement will promote transparency in pricing, which is critical to ensuring that broadband is affordable and accessible to all North Carolina residents.
Furthermore, the division will seek reporting mechanisms and data collection alternatives to compile broadband pricing data from providers beyond BEAD subgrantees, ultimately enhancing transparency in broadband pricing throughout North Carolina. The proposed data will align with the information anticipated for collection through the FCC's forthcoming broadband consumer labels known as “nutrition labels.” Even though these labels are not yet available, they may become an essential resource for consumers, by providing substantial information to support informed decisions and protect against concealed fees. By leveraging the potential of these labels and gathering additional data, the division aims to gain a comprehensive understanding of the affordability challenges of broadband services in North Carolina, informing strategies to enhance digital equity across the state.
- The division's scoring rubric rewards affordable broadband pricing besides a low-cost option. Affordability is the most critical component of the scoring rubric, after minimal BEAD program expenditure. The scoring rubric incentivizes and acknowledges applicants that pledge to offer gigabit symmetric service (for Priority Broadband Projects) or 100/20 Mbps service (for Non-Priority Broadband Projects) throughout the BEAD program's period. The

⁴⁸ <https://broadbandnow.com/research/data>

⁴⁹ <https://www.incomebyzipcode.com/northcarolina#:~:text=The%20following%20data%20are%20the,Per%20Capita%20Income%3A%20%2434%2C209>.

⁵⁰ <https://www.inmyarea.com/internet/north-carolina>

division will develop contracts and monitor performance, ensuring that BEAD subgrantees honor these commitments.

For middle-class households that do not qualify for the low-cost option but still struggle with income constraints, the division will examine the feasibility of rewarding applicants who provide the low-cost option to all subscribers rather than only income eligible subscribers, thus removing the means test. By eliminating the means test, these households can take advantage of an affordable broadband program that accommodates as many households as possible. The division will offer counties data available for their county regarding middle-class affordability to inform the priorities they establish to meet their counties specific needs for the Completing Access to Broadband program project proposal evaluation process.

Along with planning for the BEAD program, the division continues developing a Digital Equity Plan, which will expand on strategies for promoting broadband affordability.

Use of 20% of Funding (Requirement 17)

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% 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 / underserved locations.**
- c. If the Eligible Entity is requesting more than 20% (up to 100%) 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 / underserved locations, and provide rationale for requesting funds greater than 20% of the funding allocation.**

North Carolina requests 100% of the BEAD Award upon approval of the Initial Proposal. Funding will be utilized to support the challenge process, pre-qualification process, subgrantee selection, and funding awarded last-mile deployment projects. The division will only pursue non-deployment activities once funds for unserved, underserved, and CAI locations are allocated, and additional funds remain available for non-deployment subgrantee selection. More details are available in the Initial Proposal Funding Request documentation.

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

BEAD Award: \$1,527,999,481.15

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.”

YES

Eligible Entity Regulatory Approach (Requirement 18)

- 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.**

In some states receiving federal funds, broadband infrastructure will be built, owned, and operated by local or state governments. In North Carolina however, the legislature has determined that primarily private internet service providers and cooperative organizations will build, own, and manage the network infrastructure and provide ongoing broadband service to consumers. N.C.G.S. § 143B-1373(a)(7) (state broadband grant program: defining an eligible recipient as “private providers of broadband services, including cooperatively organized entities”); N.C.G.S. § 143B-1373(g)(1)(amended by S.L. 2021-180 Section 38.4)(stating that “nothing in this subdivision shall be deemed to authorize a county to provide broadband service”); N.C.G.S. 153A-274-275 (setting out counties’ authority to operate public enterprises, which omits broadband service); and N.C.G.S. § 66-58 (the North Carolina Umstead Act, prohibiting state agencies from providing services that are typically rendered by private enterprises). Municipalities are allowed to provide internet service subject to a variety of restrictions created in 2011. N.C.G.S. § 16A-340, et seq. For example, new municipal entrants must limit service to within the city’s corporate limits and must solicit proposals from private providers and negotiate with at least two of the respondents. Several municipalities were grandfathered in and allowed to expand service within certain geographical restrictions. (N.C.G.S. §160A-340) The division will encourage participation in BEAD-funded projects by eligible municipalities to the greatest extent allowed by state law.

Optional Attachment: As a required attachment only if the Eligible Entity will not waive laws for BEAD Program project selection purposes, provide a list of the laws that the Eligible Entity will not waive for BEAD Program project selection purposes, using the Eligible Entity Regulatory Approach template provided.

Law Title	Publicly Accessible Link	Description	Date Enacted	How will the law be applied in connection to competition for the subgrants?
Public Enterprise	N.C.G.S. 153A-274-275	Authorizes counties' authority to operate public enterprises, which omits broadband service.	1992	Counties can be grant recipients in partnership with private ISPs but are prohibited from providing broadband service.
Provision of Communications Service by Cities.	N.C.G.S. § 16A-340.2	City-owned communications service provider requirements.	2011	Cities must meet certain requirements before provisioning broadband service.
Umstead Act	N.C.G.S. § 66-58	Prohibits governmental units and state agencies from providing services that are typically rendered by private enterprises.	1929	Local governments and state agencies are not authorized to provide broadband service.

Certification of Compliance with BEAD Requirements (Requirement 19)

Certify the Eligible Entity's intent to comply with all applicable requirements of the BEAD Program, including the reporting requirements.

Yes, the division intends to comply with all applicable requirements and reporting requirements of the BEAD program.

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);
- b. The inclusion of claw back provisions (i.e., provisions allowing recoupment of funds previously disbursed) in agreements between the Eligible Entity and any subgrantee;
- c. Timely subgrantee reporting mandates; and
- d. Robust subgrantee monitoring practices.

Grant funds will be available to subgrantees after the effective date of the contract and can be requested by submitting a reimbursement request to the division. Reimbursement requests may be submitted for all eligible project costs incurred during construction and paid for prior to request. Additionally, reimbursement requests shall be submitted in accordance with the respective Project Milestones and grant effective dates per the subgrantee's grant agreement. If the reimbursement request is not consistent with achievement of Project Milestone deadlines, the division reserves the right to take appropriate action in accordance with 09 N.C.A.C. 03M .0800 which includes, but is not limited to, withholding funds until all corrective actions have been implemented. If no further corrective actions are taken, the subgrantee could be subject to termination of their contract and claw back of previously distributed funds, as well as disbarment from any future contracts.

To receive grant funds, the subgrantee will be required to submit the following documentation: 1) Formal Payment Request providing a summary of eligible project costs incurred for which reimbursement is being requested, 2) Evidence that these costs have actually been incurred and 3) Evidence that these costs have been paid in full.

BEAD grant funds will be fixed amount subawards pursuant to the definition found in 2 C.F.R. 200.1. The division would like to avail subrecipients of the Part 200 exceptions and adjustments NTIA applies to the BEAD program. Should any revisions to this Initial Proposal be necessary, the division would like the opportunity to make those revisions.

If, during the contract effective period, the subgrantee does not meet the identified Project Milestones and or program requirements, the division may take the proper corrective actions, including, but not limited to, request for remediation, suspension of payments and recoupment of programs funds. The division will provide the subgrantee written notice of the remediation needed. If the Grantee has not taken the appropriate remediation within a specified timeframe, the division may terminate the contract and/or claw back previously distributed funds. This may also result in the division reporting possible violations of criminal statutes involving misuse of state and federal funds to the proper authorities.

Progress reports will be required at designated times and upon request by the division. They are intended to provide information regarding the progress, obligations, and expenditures that occurred to date. The main purpose of these reports is to ensure that subgrantees, as well as the division, are aware of the programmatic and financial status of the project and that sufficient financial resources are on hand to complete the project's activities.

Progress reports include:

- Quarterly Construction Period Progress Reports: A quarterly report summarizing the status of the project, any project updates, project expenditures, locations served, as well as notice of any issue that is likely to jeopardize project milestones.
- Final Report for End of Construction Period: The final report summarizing information regarding service provisions, speeds available, data caps and address data for locations served.
- Annual Progress Report for Maintenance Period: An annual report verifying that data caps, speed and locations are still being served by the subgrantee after the construction is complete.

The county in which the project is located may request a copy of these reports. In addition to progress reports, the division will monitor projects through the use of compliance reviews. These reviews will ensure the project complies with applicable state and federal guidance and

regulations.

Compliance reviews include:

- **Risk Assessment:** The division will perform a risk assessment on all subgrantees on a periodic basis to determine the risk of noncompliance. Each subgrantee will be subject to a risk level based on the predetermined criteria set forth by the division.
- **Site Visits:** The division will conduct at least one site visit per project during the span of the construction period with the purpose of verifying and documenting project construction and broadband availability. Additional site visits may be scheduled according to the division's resources and any concerns identified during the monitoring process for the construction and maintenance periods.
- **Internal Compliance Review:**
 - The division will also perform an ongoing desk review of all project expenditures incurred during the construction phase. This desk review incorporates a technical review, financial review, and compliance review of all expenses. Review will include the subgrantee's pricing of materials, labor expenses, and associated internal management and control processes if applicable.
 - It should be noted that the division relies on NTIA to obtain exemptions from Uniform Guidance Section 2 CFR 200, Subpart D related to Program Income, Cost Principles, Real Property and Procurement. As such, the division is not currently planning any monitoring of compliance with these rules.
- **External Compliance Reviews:** The division will review all required audit reports filed by the subgrantee to ensure that the subgrantee takes timely and appropriate action on deficiencies detected through audits.
- **Post Construction Reviews:**
 - **Participation in The Affordable Connectivity Program (ACP):** During the maintenance period the division will annually verify subgrantees' participation in the ACP through the Federal Communication Commission (or any successor affordability plan).
 - **Continued Availability of Affordability Plan for Low Income and Middle-Class Service Offerings:** During the maintenance period, the division will annually verify that subgrantees offer affordable high-speed plans to low-income and middle-class households.
 - **Maintenance and Repair of Network:** The division will conduct an annual maintenance review after the construction period to verify BEAD funded areas maintain the required broadband access, speed, and availability. The division will also monitor the Federal Communication Commission data to ensure subgrantees are still providing adequate service to locations.

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

Yes

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 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 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;
- 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 30 days. The Eligible Entity must provide a subgrantee's plan to NTIA upon NTIA's request.

Yes

Volume II Public Comment

Describe the public comment period and provide a high-level summary of the comments received during the Volume I 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 30 days; and
- b. Outreach and engagement activities were conducted to encourage feedback during the public comment period.

The division prepared a draft initial proposal, divided into two volumes, and [posted it online](#) for public input on Monday, Nov. 6. The division accepted public comments via email to NCDITpartnerfeedback@nc.gov for 30 days until Tuesday, Dec. 5. The division reviewed all comments received and refined its draft before submitting the initial proposal to the National Telecommunications and Information Administration (NTIA) for approval.

The division issued a [press release](#) on Nov. 6 to notify the public and various stakeholders that the draft initial proposal was available for public comments. The division emailed hundreds of stakeholders who participated in the BEAD and Digital Equity planning processes to ensure they became aware of the draft posted online and the opportunity to provide public comments and input. Numerous partner organizations, such as the N.C. Association of County Commissioners, N.C. League of Municipalities, and N.C. Rural Center, graciously shared the announcement and invitation to provide public input in their email newsletters and various communication platforms over the course of the public comments period.

In addition, the division presented information about the draft initial proposal at several meetings and convenings during the public comments period to encourage public participation. For example, the division convened railroad organizations and internet service providers in the state for a webinar about permitting processes on Nov. 8, presented at the Connect Triangle Summit in Raleigh about deployment, digital equity, and workforce planning on Nov. 9, and hosted meetings with the Digital Equity Working Group, NC 811 utility locator service providers, and organizations representing local governments and rural residents during that period. Division staff met with individuals and organizations who requested an opportunity to discuss the draft initial proposal as well. Finally, the division offered a webinar on Dec. 4 to share information about the initial proposal, answer questions, and solicit public input. More than 150 individuals registered to participate in the webinar and the division posted a recording online afterward for on demand viewing by the public.

Public comments received related to Volume II raised these issues most:

- Deployment Subgrantee Selection Scoring – input varied and often conflicted. Some argued for prioritizing the lowest cost and number of locations served. Others argued that awarding points to incentivize the lowest cost per location served and increased provider match would benefit larger internet service providers more than smaller providers. Some also expressed concern that evaluating speed to deployment favors speed over quality. Some favored preferences for fiber to the home and others advocated for awarding projects with alternative technologies sooner in the process. The division responded by modifying the scoring criteria and values assigned.
- Affordability and Low-Cost Option – many expressed concerns about perceived rate regulation and offered alternatives to the low-cost option and affordability scoring criteria. In response the division removed the low-cost option from the scoring rubric because it is already a requirement and modified how it structures the low-cost option and affordability evaluation in the deployment subgrantee selection process.

- Defining project areas – several discouraged the use of county boundaries when defining project areas, and there was significant disagreement among stakeholders about whether to use hexbins or Census block groups. In response, the division will continue evaluating the benefits and limitations of the various approaches suggested and seeking stakeholder input to inform its decision.
- Letter of credit – several continued to express concerns about the letter of credit requirement despite the updated guidance on the topic issued by NTIA in November. Many advocated for seeking additional waivers and adopting alternatives. In response the division updated the initial proposal to reflect the updated guidance from NTIA and indicated it would continue discussion with stakeholders about optimal approaches.
- Labor Standards – some argued for limiting the labor practices required while others encouraged incentivizing subgrantees to commit to more of the optional labor practices. In response, the division clarified that some remain optional and modified the subgrantee selection scoring criteria to award a small number of points to applicants who commit to any of the optional labor practices that would increase the likelihood of compliance with federal labor standards.
- Extremely High-Cost Location Threshold – many comments about how the division should establish an extremely high-cost location threshold and when to do so in the subgrantee selection process. In response, the division will seek to achieve a balance between investing in fiber deployment to as many eligible locations as possible and setting the threshold soon enough in the process to optimize speed to deployment for alternative technologies.

ⁱ For as summary of those measures and their calculation, see U.S. Department of Labor, “WIOA Performance Indicators and Measures,” accessed October 22, 2023, <https://www.dol.gov/agencies/eta/performance/performance-indicators>.

ⁱⁱ For a detailed discussion of the limits of WIOA performance measures, see Livia Lam, *A Design for Workforce Equity: Workforce Redesign for Quality Training and Employment: A Framing Paper* (Washington, DC: Center for American Progress, 2019), <https://www.americanprogress.org/article/design-workforce-equity/>.