Initial Proposal, Volume II

(REQUIREMENTS 1, 2, 4, 8-19, and Middle-Class Affordability Plan)

Broadband Equity, Access, and Deployment (BEAD) Program

DRAFT FOR PUBLIC COMMENT

ConnectALL Office
Empire State Development
State of New York

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This document is a draft of Volume II of the Broadband Equity, Access, and Deployment (BEAD) Initial Proposal and is being released for public comment in advance of its submission by New York State's ConnectALL Office (CAO) to the National Telecommunications and Information Administration (NTIA).

All are welcome to submit comments regarding the draft document. Comments regarding the draft should be submitted via http://bit.ly/nys-bead by 5:00pm EST on December 6, 2023.

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Acronym Guide

Acronyms referenced more than once in this Plan are defined below.

ACP: The FCC's Affordable Connectivity Program, which provides subsidies for low-income and Tribal households to access home broadband subscriptions and/or internet-enabled devices.

BABA: The federal Build America, Buy America Act.

BDAC: The Broadband Deployment Advisory Committee, established pursuant to the New York State WIRED Broadband Act (2022), whose statutory duties include advising CAO, the Governor, and the Legislature on "policy changes necessary to promote expansion and development" of broadband access, "existing policies of State agencies which may be counter-productive or inimical" to broadband deployment, and "policies to

reduce regulatory obstacles and streamline regulations" to promote broadband deployment.

BEAD: NTIA's Broadband Equity, Access, and Deployment Program, which will provide $42.45 billion nationally for broadband infrastructure planning and implementation.

BOCES: Boards of Cooperative Educational Services, a program of shared educational services provided by the New York State Legislature to school districts.

CAI: Community Anchor Institution, defined by NTIA in the BEAD NOFO as "an entity such as a school, library, health clinic, health center, hospital or other medical provider, public safety entity, institution of higher education, public housing organization, or community support organization that facilitates greater use of broadband service by vulnerable populations."

CAO: The ConnectALL Office, a division of ESD, and the State's designated entity for receiving and administering BEAD Program funds.

DEC: New York State Department of Environmental Conservation, responsible for all State programs to protect and enhance the environment.

DETF: The Digital Equity Task Force, an interagency group co-convened by CAO and NYSL, with subcommittees focused on key outcome areas: education, health, workforce development, civic and social engagement, and accessibility of government services.

DHSES: New York State Division of Homeland Security and Emergency Services, which provides leadership, coordination, and support to prevent, protect against, prepare for, respond to, recover from, and mitigate disasters and other emergencies.

DSB: ESD's Division of Small Business, which supports the development and expansion of businesses with fewer than 100 employees.

DMWBD: ESD's Division of Minority and Women's Business Development, which supports MWBEs with certification and contractor matchmaking.

DOL: New York State Department of Labor, which connects New Yorkers to employment, training, and upskilling opportunities; supports workforce development initiatives; and enforces workplace protections.

EHCPLT: As defined in the BEAD NOFO, the Extremely High Cost Per Location Threshold is a BEAD subsidy cost per location to be utilized during the subgrantee selection process, above which CAO may decline to select a fiber proposal if use of an alternative technology meeting BEAD Program technical requirements would be less expensive.

ESD: Empire State Development, New York State's economic development agency and parent agency of CAO.

FCC: The Federal Communications Commission, responsible for regulating interstate and international communications by radio, television, wire, satellite, and cable across the United States; administrator of the ACP and developer of the National Broadband Map.

FEMA: The Federal Emergency Management Agency, which works to make sure the United States is equipped to prepare for and respond to disasters.

ISP: Internet service provider.

LSA: Areas with high unemployment designated annually for priority investment by the U.S. Department of Labor.

MBE: Minority Business Enterprise, a business which is at least 51% owned, operated, and controlled by citizens or permanent resident alien members of the following ethnic groups: Black, Hispanic, Asian-Pacific, Asian-Indian Subcontinent, Native American, or Alaskan Native.

MWBE: Minority- and Women-owned Business Enterprises; a collective term used in the State of New York to refer to MBEs and WBEs.

NIST: The National Institute of Standards and Technology, part of the U.S. Department of Commerce.

NOFO: Notice of Funding Opportunity; specifically, NTIA's Notices of Funding Opportunity for the BEAD and State Digital Equity Planning Grant Programs.

NRI: The National Risk Index, a dataset and online tool to help illustrate communities most at risk for 18 natural hazards; designed and built by FEMA.

NTIA: The National Telecommunications and Information Administration, administrator of the BEAD Program and State Digital Equity Planning Grant Program.

NYSDOT: New York State Department of Transportation, responsible for regulating access to State rights-of-way.

NYSL: New York State Library, a division of the New York State Education Department; co-convener of the DETF.

OCSD: ESD's Office of Contractor and Supplier Diversity, responsible for implementing ESD's MWBE program, setting MWBE participation goals, and monitoring compliance for all ESD projects.

OSWD: ESD's Office of Strategic Workforce Development, created in 2022 to align and coordinate statewide workforce development efforts.

PSC: The New York State Public Service Commission, which regulates and oversees electric, gas, water, and telecommunication industries in the state.

RDOF: The Rural Digital Opportunity Fund Program, administered by the FCC.

SHMP: The State Hazard Mitigation Plan, developed every five years by the New York State Department of Homeland Security and Emergency Services, identifying natural disaster risks and long-term mitigation strategies.

WBE: Women-owned Business Enterprise, a business which is at least 51% owned, operated, and controlled by citizens or permanent resident aliens who are women.

Introduction

Introduction

The State of New York's ConnectALL Office (CAO) hereby submits to the National Telecommunications and Information Administration (NTIA) the second volume of its Broadband, Equity, Access, and Deployment (BEAD) Initial Proposal.

This document represents one of four separate reports that CAO is preparing for NTIA in compliance with the BEAD Notice of Funding Opportunity (NOFO). The other documents include New York's Five-Year Action Plan (submitted to NTIA on August 28, 2023), Initial Proposal Volume I, and Final Proposal.

This document addresses the following requirements outlined in the BEAD NOFO:

1. The document outlines long-term objectives for deploying broadband, closing the digital divide, addressing access, affordability, equity, and adoption issues, and enhancing economic growth and job creation (Initial Proposal Requirement 1).
2. The document identifies and outlines steps to support local, Tribal, and regional broadband planning processes or ongoing efforts to deploy broadband or close the digital divide and describes coordination with local and Tribal Governments, along with local, Tribal, and regional broadband planning processes (Initial Proposal Requirement 2).
3. The document certifies that the State has conducted coordination, including with Tribal Governments, local community organizations, unions and worker organizations, and other groups, consistent with the requirements set forth in Section IV.C.1.c of the BEAD NOFO, describes the coordination conducted, summarizes the impact such coordination had on the content of the Initial Proposal, details ongoing coordination efforts, and sets forth the plan for how the State will fulfill the coordination requirements associated with its Final Proposal (Initial Proposal Requirement 4).
4. The document includes a detailed plan to competitively award subgrants consistent with Section IV.B.7.a of the NOFO with regard to both last-mile broadband deployment projects and other eligible activities. With respect to last-mile broadband deployment projects, the plan explains how the State will ensure timely deployment of broadband and minimize the BEAD subsidy required to serve consumers consistent with Section IV.B.7 and the other priorities of the NOFO (Initial Proposal Requirement 8).
5. With respect to non-deployment eligible activities, the document explains any preferences the State will employ in selecting the type of initiatives it intends to support using BEAD Program funds (Initial Proposal Requirement 9).
6. The document describes initiatives the State proposes to implement as the recipient without making a subgrant, and why it proposes that approach (Initial Proposal Requirement 10).

7. The document details how the State will ensure that subgrantees, contractors, and subcontractors use strong labor standards and protections, such as those listed in Section IV.C.1.e of the NOFO, and how the State will implement and apply the labor related Subgrantee Selection criteria described below in Section IV.C.1.e of the NOFO (Initial Proposal Requirement 11).
8. The document details how the State will ensure an available, diverse, and highly skilled workforce consistent with Section IV.C.1.e of the NOFO (Initial Proposal Requirement 12).
9. The document describes the process, strategy, and data tracking methods that the State will implement to ensure that minority businesses, women-owned business enterprises, and labor surplus area firms are recruited, used, and retained when possible (Initial Proposal Requirement 13).
10. The document identifies steps that the State will take to reduce costs and barriers to deployment, promote the use of existing infrastructure, promote and adopt dig-once policies, streamline permitting processes and cost-effective access to poles, conduits, easements, and rights of way, including the imposition of reasonable access requirements (Initial Proposal Requirement 14).
11. The document provides an assessment of climate threats within the state and proposed mitigation methods consistent with the requirements of Section IV.C.1.h of the NOFO (Initial Proposal Requirement 15).
12. The document describes the low-cost plan that must be offered by subgrantees consistent with the requirements of Section IV.C.2.c.i of the NOFO (Initial Proposal Requirement 16).
13. The document includes a middle-class affordability plan to ensure that all consumers have access to affordable high-speed internet.
14. The document describes the intended use of the funding allocation to be made available upon approval of the Initial Proposal (Initial Proposal Requirement 17).
15. The document discloses whether the State will waive all State laws concerning broadband, utility services, or similar subjects that either (a) preclude certain public sector providers from participation in the subgrant competition or (b) impose specific requirements on public sector entities (Initial Proposal Requirement 18).
16. The document certifies the intent of the State to comply with all applicable requirements of the Program, including the reporting requirements, and describes subgrantee accountability procedures (Initial Proposal Requirement 19).

1

Objectives

(REQUIREMENT 1)

1 Objectives (Requirement 1)

This Initial Proposal Volume II reiterates the broadband goals and priorities identified in New York's BEAD Five-Year Action Plan.

1.1 Vision

The State's vision for the ConnectALL initiative is as follows:

ConnectALL will transform New York's digital infrastructure, so all residents and businesses have access to high-speed, reliable, and affordable broadband for education, economic growth, and full participation in civic life. ConnectALL invests in a robust and competitive internet marketplace to support economic development and benefit New Yorkers with consumer choice. ConnectALL leads a statewide mobilization to end the digital divide with partners in State, regional, county, local, and Tribal governments, and in the private, nonprofit, and academic sectors.

1.2 ConnectALL Initiative

Through ConnectALL, the State of New York will mobilize more than $1 billion in public investments to connect New Yorkers in rural and underserved areas statewide to broadband. Governor Hochul announced five new grant programs as a framework for ConnectALL's signature public investments:[1]

- **Statewide Digital Equity Plan and Grant Program** to support New Yorkers' use of the internet to participate in our society, democracy, and economy.
- **Rural Broadband Grant Program** for areas that lack broadband infrastructure ("ConnectALL Deployment Program").
- **Local Connectivity Planning and 21st Century Municipal Infrastructure Grant Program** for municipalities, nonprofits, and other entities to construct open and accessible public broadband infrastructure ("Municipal Infrastructure Program").
- **Affordable Housing Connectivity Program**, a partnership with New York Homes and Community Renewal to retrofit affordable housing with broadband installations as part of the agency's overall housing plan.
- **Connectivity Innovation Grant Program** to develop creative broadband solutions and ensure New York is a global leader in pioneering future breakthroughs.

[1] "Governor Hochul Announces New $1 Billion 'ConnectALL' Initiative to Bring Affordable Broadband to Millions of New Yorkers." New York State, January 5, 2022, https://www.governor.ny.gov/news/governor-hochul-announces-new-1-billion-connectall-initiative-bring-affordable-broadband.

In April 2022, the New York State Legislature passed legislation providing authority to Empire State Development (ESD) to establish the ConnectALL Office (CAO) based on the following statement of legislative findings and purpose:

> "The legislature hereby finds and declares that: access to high-speed, reliable, and affordable broadband is essential for education, economic growth, and full participation in civic life; the persistence of the digital divide is a key barrier to improving the general welfare; the digital divide disproportionately affects communities of color, lower-income areas, rural areas, and other vulnerable populations, and the benefits of broadband access should be available to all; a robust and competitive internet marketplace in New York supports general economic development and benefits New Yorkers with improved internet service and affordability; the State has a responsibility to assist in ending the digital divide, supporting a more robust and competitive internet marketplace, and carrying out other actions to ensure universal access to high-speed, reliable, and affordable broadband."[2]

The ConnectALL initiative includes additional support for New York's broadband vision that aligns closely to its BEAD goals, including enhancing investment through comprehensive mapping, streamlining permitting by removing outdated regulatory hurdles and fees and leveraging State assets, and promoting the federal Affordable Connectivity Program (ACP) for low-income households. This work enhances New York's preparation for NTIA's BEAD and Digital Equity investments.

BEAD funds will support the implementation of the ConnectALL Deployment Program[3]; BEAD planning and data collection work will support and inform CAO's comprehensive approach to addressing the digital divide through all of the programs in the ConnectALL portfolio.

1.3 Digital Equity Principles

CAO has adopted five digital equity principles to guide the implementation of its mandate:

- **Equity**: All residents and businesses should have the internet, digital skills, and devices to participate fully in our society, democracy, and economy.

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[2] The WIRED Broadband Act added a new Section 16-gg to Section 1 of Chapter 174 of the laws of 1968, constituting the New York State Urban Development Corporation Act; *see* https://www.nysenate.gov/legislation/laws/UDA/16-GG*2 at §2.

[3] The "ConnectALL deployment program," defined in the WIRED Broadband Act, id, at §7, was also referred to as the "Rural Broadband Grant Program" in Governor Hochul's ConectALL announcement.

- **Performance:** All internet services should be reliable and of high quality, delivered with excellent customer service and providing safe, rewarding quality jobs.
- **Choice:** All residents and businesses should be able to determine their service provider, service plans, and modes of digital engagement.
- **Affordability**: No one should be denied internet service because of an inability to pay.
- **Safety**: All residents should have privacy, security, and dignity online, and our use of the internet should enhance our well-being.

These principles have informed CAO's BEAD planning work, as well as its parallel work to develop the State Digital Equity Plan.

1.4 Goals and Objectives

The State of New York has the following broadband deployment and digital equity goals and objectives, which the BEAD Program will support:

Goal 1: New York's digital infrastructure will connect all residents and businesses to high-speed, reliable, and affordable broadband.

- Objective 1: All households and businesses in New York have access to broadband infrastructure by 2030.
- Objective 2: Rural cellular coverage will expand every year from 2025 to 2030.

Goal 2: New York will have a robust and competitive internet marketplace to support economic development and benefit New Yorkers with consumer choice.

- Objective 1: At least 100,000 households in affordable and public housing have access to improved broadband quality, affordability, and choice by 2030.
- Objective 2: At least 20,000 households will have new open-access municipal infrastructure to improve local broadband quality, affordability, and choice by 2030.
- Objective 3: Un/underemployed and historically marginalized New Yorkers will have improved access to at least 2,000 quality jobs created through new investment by 2030.[4]

4 CAO's initial labor analysis estimates that planned federal and State broadband investment will create 1,650+ one-time (construction-related) jobs at peak investment and 730+ new permanent operations jobs. These estimates will be refined through engagement with industry and State partners.

Goal 3: A statewide mobilization with partners in State, regional, county, local, and Tribal governments, and in the private, nonprofit, and academic sectors will end the digital divide.[5]

- Objective 1: Produce New York's first ever State Digital Equity Plan with engagement from every region of the state.
- Objective 2: Invest at least $50 million to implement the State Digital Equity Plan.
- Objective 3: Identify at least five connectivity innovations to improve internet service and affordability for rural and/or low-income areas and support economic development.

[5] This goal and its objectives are designed to align with the forthcoming State Digital Equity Plan. For more information, see http://bit.ly/nys-sdep.

2

Local, Tribal, and Regional Broadband Planning Processes

(REQUIREMENT 2)

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

CAO initiated several rounds of meetings with county government and Regional Planning Councils following award of the BEAD Planning Grant in December 2022.[6] CAO and these partners mobilized a statewide effort to submit challenges to the Federal Communications Commission (FCC)'s National Broadband Map with the goal of aligning the federal map with the State's and counties' assessment of local conditions. This collaboration was also a chance to establish points of contact and build capacity among these partners, specifically in their ability to obtain, manage, and analyze essential broadband data to inform regional broadband and economic development plans. CAO has continued to engage with and support these partners as the challenge process has progressed through subsequent phases. These county and Regional Planning Council partners will be critical to BEAD implementation.

CAO partnered with the New York State Library (NYSL), a division of the New York State Education Department, to co-convene an interagency Digital Equity Task Force (DETF). NYSL had established and mobilized a network of State agencies, regional library councils, and community organizations throughout the COVID-19 pandemic. This network and an existing working group of State agencies served as a key foundation for the development of the Task Force.

The DETF has met monthly throughout the BEAD and Digital Equity planning processes. In Spring 2023, CAO and NYSL established five DETF subcommittees, each focused on a key outcome area: education, health, workforce development, civic and social engagement, and accessibility of government services. Each subcommittee is co-chaired by a State agency representative and an external expert in the outcome area.

CAO has held a virtual town hall led by each of the five DETF subcommittees to inform the State Digital Equity Plan, Five-Year Action Plan, and Initial Proposal. The town halls convened key stakeholders, subject-matter experts, and members of the public to discuss issues related to each subcommittee outcome area and to provide input to the State's Plans. CAO will work with the DETF to solicit public comment on the State

[6] There are nine Regional Planning Councils in New York State, which collectively represent 45 of the 62 counties in New York. Articles 12-B and 5-G of the New York State General Municipal Law gave municipalities the legal authority to create regional or metropolitan planning boards and joint-purpose municipal corporations; New York's Regional Planning Councils provide planning for the coordinated growth and development of their regions, including marketing, economic development, land-use, transportation, environment and water resources management, human resources management, regional data services, and technical assistance for communities on grant application, financial planning, and information services.

Digital Equity Plan and BEAD Initial Proposal and intends to maintain the Task Force through implementation of both Programs.

In parallel to virtual, statewide engagement through the DETF, CAO partnered with Digital Equity Coalitions and other entities ("Regional Partners") in each of New York State's ten regions (shown below) to reach and convene local stakeholders. CAO and Regional Partners co-hosted 15 hybrid (virtual and in-person) listening sessions, convening more than 1,200 New Yorkers in total.[7] Each listening session included an overview of the ConnectALL initiative, CAO's planning principles, and a look ahead at the BEAD and Digital Equity Planning process. Regional planning and economic development representatives were invited to present their perspectives on regional broadband challenges and opportunities, informed by their specific goals and experience within their regions. Participants were then invited to join interactive breakout discussions with facilitated prompts to share their experiences accessing the internet and digital services in their communities and provide local perspectives on the vision for ConnectALL.

Figure 1: New York State Regions[8]

[7] Summary notes and presentation slides from all listening sessions are publicly available at http://broadband.ny.gov.

[8] Image source: Empire State Development.

CAO's Regional Partners subsequently conducted more than 40 focus groups for more in-depth discussion of challenges and barriers to broadband access and adoption.[9] More than 675 individuals participated in the focus groups with participant recruitment tailored to represent the covered populations in each region. CAO intends to continue working with its Regional Partners during the public comment and implementation phases of the BEAD and Digital Equity Programs. CAO will also support peer learning opportunities to strengthen connections across the state.

CAO conducted the NYS Internet Access Survey (see Appendix 1) to gather information from the general public about broadband needs, barriers, and opportunities. CAO worked with Regional Partners to obtain more than 5,700 responses to the survey with specific distribution goals developed by region and demographic category. As a result of this effort, CAO has a statistical basis to inform its programs.[10] CAO plans to re-administer the survey periodically to assess progress with specific communities over time.

CAO has conducted five virtual roundtables to facilitate stakeholder discussion on specific aspects of the State's Plans (see Appendix 2 for details on topics, audiences, and attendees for these sessions). CAO will continue to use this format for in-depth review of key issues, policy decisions, and research findings.

CAO contacted all federally recognized Tribal Nations within the state to invite participation in a formal consultation, which was held in April 2023. Representatives of the Seneca Nation and the Saint Regis Mohawk Tribe participated in the consultation. CAO has continued to engage those two Nations, including by attending a Tribal Broadband Bootcamp hosted by Mohawk Networks. CAO has conducted further outreach to the other Nations and has met with State agencies and other organizations that work with Tribal communities to inform the State's Plan. CAO will build on this engagement in coordination with the State's Deputy Secretary for First Nations, a newly established position within the Governor's Office.

CAO has conducted more than 40 interviews and dozens of meetings with potential subgrantees or partners, including internet service providers (ISPs), electric co-ops, middle-mile infrastructure owners, and investors. CAO additionally conducted two focus groups with affordable housing property owners to understand the unique needs of low-

[9] Partners conducted a minimum of three focus groups per region, with a minimum of ten participants per focus group. Each partner was assigned two specific NTIA-defined covered populations to target for focus group participation. Focus groups were conducted in alignment with ConnectALL's Digital Equity and BEAD Research Plan, which was reviewed and approved in December 2022 by NTIA and its partners at the National Institute of Standards and Technology.

[10] A detailed analysis of the results of this survey is included in CAO's State Digital Equity Plan (http://bit.ly/nys-sdep).

income residents and the challenges of deploying broadband in multi-dwelling unit environments.

CAO has held several dozen direct meetings with a range of municipal and county governments, Regional Planning Councils, Regional Economic Development Councils, Community Action Agencies, Digital Equity Coalitions, Library Councils, digital equity organizations, workforce development organizations, educational organizations, institutions of higher learning, and more. In many cases, CAO and the stakeholder have held follow-up sessions to understand the specifics of each community's broadband needs, strengths, challenges, and opportunities.

Finally, CAO conducted numerous site visits to understand the conditions of broadband deployment and adoption across the state, with visits to municipalities including Diana, Nichols, Pitcairn, Sherburne, Syracuse, and Tupper Lake; the INOC data center in Albany, New York; and community organizations including Civic Hall, Literacy of Rochester, the Manhattan Neighborhood Network, Mission: Ignite, and Y-Zone.

Additional details on all engagement activities, including dates, locations, partners involved, and numbers of attendees, are included in the Stakeholder Engagement tab of CAO's Local Coordination Tracker (included as Appendix 2).

3

Local Coordination

(REQUIREMENT 4)

3 Local Coordination (Requirement 4)

CAO has conducted a statewide stakeholder engagement effort to inform the design of its grant programs and strengthen the ecosystem of partners to deliver those programs. CAO intends to build on this body of work, described below, throughout the BEAD implementation period.

CAO's Local Coordination Tracker is included as Appendix 2.

3.1 Alignment with NTIA Local Coordination Criteria

The efforts described in Section 2 reflect CAO's dedication to ensuring its engagement model is both inclusive and effective. CAO's engagement process meets NTIA's five local coordination criteria, described below.

Full geographic coverage of the Eligible Entity

CAO has conducted public engagements and targeted stakeholder outreach in all ten geographic regions of the state. By allowing for virtual participation in most engagement events, CAO has minimized geographic travel restrictions, enabling meaningful engagement from a diverse range of stakeholders that may otherwise not have been able to participate in the planning process.

Meaningful engagement and outreach to diverse stakeholder groups

CAO has leveraged its existing relationships with local and State agencies as well as regional partners, private entities, and community-based organizations to develop and expand on its diverse, inclusive outreach list. Within the BEAD planning period, CAO has developed a robust outreach list of approximately 4,500 contacts, including representatives from county, local, and Tribal governments; regional planning and economic development organizations; ISPs; utilities; workforce development and labor organizations; educational institutions; libraries and other Community Anchor Institutions (CAIs); and more. By developing a multi-pronged engagement strategy with multiple opportunities to participate, CAO has been able to connect with a wide array of stakeholders to bring them into the planning process.

Utilization of multiple awareness and participation mechanisms and different methods to convey information and outreach

CAO's engagement strategy is geographically diverse and includes several avenues for participation: from 1:1 stakeholder interviews to a statewide survey reaching thousands, from high-level webinars to in-depth focus group discussions, and from elected officials to members of historically marginalized communities, CAO has sought a varied approach across several metrics to ensure that all constituents have an opportunity to participate.

Establishment, documentation, and adherence to clear procedures to ensure transparency

CAO has sought to provide as much information as possible to participants to help them understand the purpose of the engagement, how their information will be used, and what they can expect next from CAO. For meetings that are recorded or where notes will be shared after, CAO has always communicated this explicitly to participants ahead of time. CAO continues to post new materials (including event presentation slides, recordings, and notes) and updates to its website on a regular basis.

Outreach and engagement of unserved and underserved communities, including historically underrepresented and marginalized groups and/or communities

CAO has worked to engage representatives and individuals from all covered populations identified in the State Digital Equity Planning Grant Program NOFO and all underrepresented populations and stakeholder groups identified in the BEAD NOFO.[11] CAO's listening sessions, focus groups, and DETF town hall meetings have provided a venue for individuals with lived experiences of the digital divide, as well as stakeholders who work with and represent these individuals, to share their perspectives on the State's Plans. The focus group methodology, in particular, was designed to target covered populations who were likely to be underrepresented in other methods of engagement.

CAO has additionally worked to make its engagement efforts inclusive and accessible to diverse populations, including by providing sign language interpretation at engagement events; providing closed captioning for all virtual events; making the NYS Internet Access Survey available both online and in print, in twelve languages (English, Arabic, Bengali, Chinese, French, Haitian Creole, Italian, Korean, Polish, Russian, Spanish, and Urdu); conducting focus groups and listening sessions in English and Spanish; sharing

[11] As defined in the State Digital Equity Planning Grant Program NOFO, "covered populations" means: individuals who live in covered households (a household, the income of which for the most recently completed year is not more than 150 percent of an amount equal to the poverty level, as determined by using criteria of poverty established by the Bureau of the Census); aging individuals (60 years of age or older); incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility; veterans; individuals with disabilities; individuals with a language barrier, including individuals who are English learners and have low levels of literacy; individuals who are members of a racial or ethnic minority group; and individuals who primarily reside in a rural area. *See* Digital Equity Planning Grant Program NOFO, p. 8.

Priority stakeholder groups identified in the BEAD NOFO include political subdivisions, Tribal governments, local and community-based organizations, unions and worker organizations, and "underrepresented communities," defined as: "groups that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, including: low-income households, aging individuals, incarcerated individuals, veterans, persons of color, Indigenous and Native American persons, members of ethnic and religious minorities, women, LGBTQI+ persons, persons with disabilities, persons with limited English proficiency, persons who live in rural areas, and persons otherwise adversely affected by persistent poverty or inequality." *See* BEAD NOFO, p. 16.

event slides, recordings, and notes publicly online for those not able to attend live; and ensuring all materials posted publicly online are accessible.

3.2 Tribal Consultation

CAO contacted all federally recognized Tribal Nations within the state to invite participation in a formal consultation, which was held in April 2023. Representatives of the Seneca Nation and the Saint Regis Mohawk Tribe participated in the consultation. The meeting focused on needs, challenges, and assets in the following areas: infrastructure, grants and partnerships, make-ready, sustainability, adoption and affordability, devices and digital literacy, successful programs, cybersecurity, and workforce and economic development.

CAO has continued to engage those two Nations, including by attending a Tribal Broadband Bootcamp hosted by Mohawk Networks. CAO has conducted further outreach to the other Nations and has met with State agencies and other organizations that work with Tribal communities to inform the State's Plan.

CAO will build on this engagement in coordination with the State's Deputy Secretary for First Nations, a newly established position within the Governor's Office.

3.2.1 Evidence of Tribal Consultation

Attached as Appendix 3 is documentation from CAO's formal Tribal consultation process, including the meeting agenda and summary notes.

3.3 Ongoing Local Coordination

CAO used the engagement methods detailed above because they are sustainable and flexible structures that subsequent efforts can build upon. Partnerships and relationships built through the Initial Proposal process will be strengthened as CAO develops its Final Proposal. Strategies CAO will employ to collaborate with key stakeholders moving forward include:

- Utilizing the Needs Assessment and Asset Inventory CAO developed for the State Digital Equity Plan to support the full broadband and digital equity ecosystem with network building, resource identification, and public outreach
- Adjusting DETF subcommittee activities to focus on implementation or intergovernmental collaboration through core State agency representatives
- Hosting ISP and other stakeholder forums based on questions and issues that arise and continuing to develop materials and technical assistance for these audiences
- Continuing to build strategic partnerships with Digital Equity Coalitions, Regional Planning Councils, Regional Economic Development Councils, Tribal Nation leaders and organizations, and community organizations to disseminate

information, receive ideas and feedback, and maintain a coordinated but geographically tailored engagement approach throughout New York State

- Leading external affairs to build coalitions to strengthen workforce and economic development efforts essential for achieving successful broadband deployments
- Targeting key strategic partnerships for further exploration through engagements such as those illustrated in the Local Coordination Tracker

4

Deployment Subgrantee Selection

(REQUIREMENT 8)

4 Deployment Subgrantee Selection (Requirement 8)

This section of Volume II describes in detail how CAO proposes to structure, design, and implement its grant program to award BEAD funds for subgrantees to deploy broadband infrastructure in New York. This section includes discussion of the structure of the program, the timeline, the scoring, and steps CAO will take to maximize the reach and impact of BEAD funds throughout New York.

CAO developed this subgrantee selection process to meet both NTIA's requirements and the State's goals. While every effort has been made to propose scoring criteria and requirements that will enable CAO to make awards to subgrantees for projects that will maximize the impact of the BEAD funding and other resources the State may commit to the BEAD program, CAO also recognizes that this grant program, like any such program, will not have guaranteed outcomes. For example, some areas may not attract any applicants or may attract only one applicant. Further, the BEAD program breaks new ground and is experimental in that no entity, State or federal, has ever been required to design a program that would address the needs of 100% of eligible locations. CAO therefore reserves the opportunity to revise this subgrantee selection process and to negotiate with applicants as needed, so long as the State meets the BEAD requirements.

4.1 Deployment Subgrantee Selection Process

4.1.1 Principles

CAO’s subgrantee selection process will use the established policies, processes, and procedures of Empire State Development (ESD) as authorized under the New York State Urban Development Corporation Act and the New York State WIRED Broadband Act.

CAO’s BEAD approach is designed with the goals of fairness, openness, and competition at the forefront.

Openness is crucial to ensure the best outcomes for unserved and underserved communities and will involve a range of strategies:

- Open and inclusive eligibility for grant awards, welcoming applications from both public and private entities large and small, as well as collaborations and public-private partnerships
- Scoring criteria that reward open access and enhance broadband competition and mobile deployment
- Provision of adequate notice of funding and engagement opportunities to enable participation by a wide variety of applicants

- Community input at all stages of the BEAD process, including through engagement and feedback on the plans themselves
- Openness and transparency in the evaluation process, with feedback to unsuccessful applicants to build trust and encourage participation

Fairness for applicants is essential to encourage competition, innovation, and the efficient use of resources while ensuring that underserved areas receive the connectivity they need. To ensure fairness in its BEAD grant process, CAO will ensure the following:

- An open and transparent process, with all grant materials and guidance available to all potential applicants on the same timeline, including publication of the scoring rubric
- Ongoing and frequent communications through public means such as grant workshops to enable maximum information sharing with potential applicants
- Inclusive eligibility criteria that are clear and not overly restrictive, within the parameters of the BEAD program, to ensure that entities of all sizes, both public and private, can participate
- Transparent scoring criteria
- A competitive process that encourages applicants to submit innovative proposals and cost-effective solutions
- A fair review process that is impartial and free from conflicts of interest, with independent evaluators engaged to assess proposals. To safeguard against bias, collusion, conflict of interest, and self-dealing, CAO will ensure that all reviewers are entirely financially independent of all applicants. Reviewers will be required to certify in writing that they have no employment, contractor, or other business relationship with any applicant or any affiliate or subsidiary of any applicant

Competition is at the heart of CAO's goals, methodology, and commitments. Creating a competitive environment for the BEAD grant program will be ensured through multiple means:

- Broad eligibility and participation, including municipalities, counties, electric utilities, and a full range of nonprofit and for-profit private entities
- A grant program that, while consistent with the BEAD rules, is designed to make it feasible for all sizes of entities to compete without facing unreasonable costs or level of effort
- Incentives for collaboration by applicants with other providers, local governments, and community organizations
- Use of competitively neutral criteria for scoring and awards
- Incentives for open access over newly funded broadband networks, allowing multiple service providers to use the same infrastructure, thus promoting

competition over the network, at the wholesale or retail level (or both), as well as opportunity for other entities, such as mobile providers, to use funded assets
- Incentives for public-private partnerships among ISPs and local governments, enabling an additional form of competition through public involvement

Additionally, CAO is following a principle of **maximizing impact** in its program design: seeking to make limited funds reach as far as possible; prioritizing fiber-to-the-premises to the maximum number of locations possible; and ensuring that public funds are put to their best possible use through rigorous review and qualification of bids.

4.1.2 Subgrantee Selection Process Overview

CAO anticipates a multi-step process for selecting subgrantees that will begin with prequalification of applicants (hereinafter referred to as the Prequalification Phase) and then proceed to receipt and scoring of grant applications (hereinafter referred to as the Scoring Phase).

Consistent with federal and State policy, CAO anticipates prioritizing for its BEAD funds projects that commit to build fiber-to-the-premises, reflecting the State's commitment to deploying best-in-class, future-proof broadband infrastructure wherever possible and to the greatest extent possible.

CAO's analysis is that, so long as an adequate competitive dynamic is created for the bidding process, the BEAD funds will be sufficient to fund fiber-to-the-premises to the vast majority of unserved and underserved locations in New York, based on the economics of fiber deployment and operations and the financial contributions that applicants are projected to commit, through match and other funds. Stated otherwise, CAO's data suggests that there exists a business case, with respect to more than 90% of unserved and underserved locations, for applicants to request funding for fiber at a level that, when totaled, will be equal to the BEAD funds available. This analysis reflects CAO's calculation of how much applicants will commit, given likely financial returns, for each unserved and underserved location.

At the same time, CAO recognizes that the BEAD funds allocated by NTIA to New York may be insufficient to fund fiber to every single unserved and underserved location, particularly considering the unpredictability of fiber construction costs during the BEAD timeline and considering the challenges of reaching many extremely remote locations in some parts of New York. CAO thus intends to add to the BEAD funds up to $50 million of State funds that will increase the total budget for the BEAD grant program and help to ensure that as many unserved and underserved locations as possible are addressed with end-to-end fiber, with alternative technologies deployed to remaining eligible locations.

Grant Area determination (see Section 4.6)

CAO plans to define project areas through a Grant Area Determination Process in which it will design and specify the geographic boundaries of the Grant Areas for which prospective subgrantees can bid. These boundaries may align with county boundaries or with other features such as geography or existing network architecture.

CAO will make information regarding the Grant Areas available to potential applicants at the time of release of grant materials in the form of polygons or descriptions of geographic boundaries, accompanied by lists of eligible locations as identified through the State's Challenge Process.

Secondary Coverage Percentages (see Section 4.6.2)

Applicants will be required to submit proposals to reach 100% of unserved and underserved locations in each Grant Area. In addition, applicants will have the option to submit cost proposals for one or more alternative options for required coverage percentages that will be defined for each Grant Area by CAO (hereinafter referred to as "Secondary Coverage Percentages"). These Secondary Coverage Percentages will be based on CAO's analysis of the number of locations that are so costly to build that they may serve to make the entire Grant Area too expensive for New York's finite BEAD budget (NTIA considers such costs to exceed the "Extremely High Cost Per Location Threshold," which is the cost at which building fiber is so expensive that NTIA will allow funding of alternative technologies).

Before entertaining alternative technology proposals, CAO will evaluate proposals for Secondary Coverage Percentages to allow for the option of funding proposals to serve *almost* all unserved and underserved locations in a Grant Area, in the event that no cost-effective application is received for 100% of unserved and underserved locations.

Benchmark Pricing (see Section 4.6.3)

CAO's development of Grant Areas will include development of benchmark pricing, aggregated for the entire Grant Area, based on CAO's internal engineering and economic modeling. The benchmark pricing will provide a mechanism for scoring based on a level playing field for applicants across the state, to incentivize cost-effective proposals and to disincentivize proposals that would deliver windfall benefits to bidders. For the purpose of evaluating grant applications, the benchmark price by Grant Area will be a critical tool in scoring, as described in Section 4.6.3.

No-bid scenarios (see Section 4.7)

In the event no proposal (or no viable proposal) is received for any given Grant Area, CAO may negotiate with one or more applicants that have bid for adjacent areas for commitments to build to the unbid locations. In addition, CAO may choose to undertake a second (and possibly third) competitive process to formally attract bids for the Grant Areas that do not receive proposals and/or for the locations that are excluded by

applicants through the Secondary Coverage Percentage process. If CAO does choose to put these Grant Areas and/or locations out for new applications, the process will be managed in a fair, open, and competitive fashion to enable all eligible entities to participate.

Projects on Tribal Nation lands (see Section 4.8)

CAO will award funds for deployment on Tribal Lands only with written approval from the Tribal Nations. For applications that propose to deploy broadband on Tribal Lands, CAO will assign 5% of all available points in scoring to indications of support from Tribal Nation authorities.

The Extremely High Cost Per Location Threshold (see Sections 4.9 and 4.10)

CAO will determine the Extremely High Cost Per Location Threshold (EHCPLT) once it has received all grant applications and will use it to efficiently allocate its BEAD funding based on the applications received.

CAO will utilize the EHCPLT in a multipart, structured process to fairly and openly optimize the use of BEAD funds to deploy broadband. The multipart process is described in detail in Section 4.10.

In brief summary, CAO will first determine which proposals for 100% of eligible locations in a Grant Area exceed the EHCPLT and will consider whether to fund applications for lower percentages; and second, CAO will consider whether lower cost non-fiber projects where there is no proposal for fiber that is below the EHCPLT.

For all Grant Areas for which no satisfactory application can be funded, as well as for locations that are excluded from funding under the Secondary Coverage Percentages process, CAO may undertake an additional grant round and seek alternative proposals or may otherwise seek alternative solutions for securing broadband to those areas and locations.

4.1.3 Phases

The BEAD funding effort will be comprised of the following two key phases:

1. **Prequalification Phase**, to establish the qualifications of prospective applicants
2. **Scoring Phase**, which will include:
    a. **Grant Area Determination Process**, to specify the geographic boundaries of the Grant Areas for which prospective subgrantees can apply
    b. **Receipt of applications**, during which applicants will submit their proposed projects
    c. **Negotiation Phase,** in which CAO will engage with applicants to reach final project boundaries and costs

This process may be followed by a second (and possibly third) grant round to solicit additional proposals through a fair, competitive, and open process, if time allows and CAO believes such an effort is in the best interests of achieving the goal of universal broadband service.

The following sections provide further details on the Prequalification and Scoring Phases of CAO's BEAD grant process.

4.1.3.1 Prequalification Phase

During the Prequalification Phase, CAO will accept prequalification materials from all prospective applicants, enabling applicants to establish their qualifications and CAO to prequalify them in advance of the Scoring Phase.

The Prequalification Phase is designed to serve several crucial purposes. First, it helps mitigate the challenges of the compressed timeline for BEAD. CAO anticipates launching the Prequalification Phase in early 2024, while NTIA is reviewing the Initial Proposal, thus enabling CAO and prospective applicants to efficiently progress the program before NTIA formally approves the Initial Proposal and enables the grant process to begin.[12] Given the rigorous and robust documentary requirements for BEAD, a Prequalification Phase, separate from the Scoring Phase, will enable applicants to spread their grant application efforts across a lengthier timeline, lessening the administrative burden.

Second, the process will help to manage CAO's own resources efficiently. By filtering out applicants who do not meet the minimum criteria, a prequalification process can ensure that reviewers can focus their time and attention in the Scoring Phase on evaluating proposals from organizations that meet NTIA's and the State's requirements and are most likely to achieve the objectives of the BEAD program.

Third, a prequalification process will enable adequate curing opportunity by providing additional time for follow-up data requests by CAO as necessary. With an earlier process for prequalification, this curing need not take place at the same time as curing of proposed project applications.

CAO's BEAD application materials will specify the materials and certifications that are required for prequalification, together with the format and date for submission. The materials and certifications that CAO currently anticipates requiring during the Prequalification Phase are detailed in Section 4.2.1.

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[12] CAO recognizes that this process will occur before NTIA has approved the Initial Proposal Volume II. In the event that NTIA requires changes to the Initial Proposal Volume II that are inconsistent with the Prequalification Phase requirements for applicants, CAO will add the changed or additional items to the Scoring Phase application requirements.

All entities whose prequalification materials are determined to be sufficient will be able to proceed to the Scoring Phase of the program and submit project proposals.

4.1.3.2 Scoring Phase

Following completion of the Challenge Process, approval by NTIA of Volume II of the Initial Proposal, and completion of the Prequalification Phase, CAO will accept, review, and score grant applications for specific projects—and will conduct a series of related necessary activities, prior to and following acceptance of the grant applications. These will include:

1. **Grant Area Determination Process**, to specify the geographic boundaries of the Grant Areas for which prospective subgrantees can apply
2. **Receipt of applications**, during which applicants will submit their proposed projects
3. **Negotiation Phase,** in which CAO will engage with applicants to reach final project boundaries and costs

Each of the three elements of the Scoring Phase is described in detail below.

4.1.3.2.1 Grant Area Determination Process

This part of the BEAD grant process is designed to specify the geographic boundaries of the Grant Areas for which prospective subgrantees can bid.

CAO anticipates undertaking the Grant Area Determination Process once it understands the final contours of the grantmaking map that results from the Challenge Process that will be run in early 2024 (following NTIA's approval of the Initial Proposal Volume I and CAO's submission of the Initial Proposal Volume II). The Grant Area Determination Process will be conducted by CAO while NTIA is doing its Challenge Process Validation and immediately in advance of release of the BEAD grant materials.

The Grant Area Determination Process will have three elements:

1. Geographic boundaries
2. Alternative unserved and underserved coverage percentage commitment options (Secondary Coverage Percentages)
3. Benchmark pricing

Each element of the Grant Area Determination Process is described in further detail in Section 4.6 below.

4.1.3.2.2 Receipt of Applications

Once the Grant Areas have been defined and CAO has received full authorization from NTIA based on approval of the outcome of the Challenge Process and of the Initial Proposal Volume II, CAO will distribute grant materials and begin accepting applications for proposed projects.

At that time:

- CAO will make BEAD application materials available on its website. These materials will include an Application and Program Guide. CAO will provide additional resources on its website to direct potential applicants to third-party resources that may be of use, including those provided by NTIA, the National Institute of Standards and Technology (NIST), FCC, and others.
- CAO will conduct an online application workshop following the release of the BEAD grant materials. This workshop will provide general instructions, discuss the program's goals and objectives, map out major program milestones, answer questions, and provide other technical assistance. This workshop will be recorded and made available, along with presentation and other supporting materials, on the CAO website.

During the time the grant application window is open, CAO will have a dedicated email address available for participants to use to ask questions and request technical assistance. Updated program materials and new information will be posted on CAO's website when available. Users will be able to register to receive automatic email notifications when new information is posted or program materials are updated.

4.1.3.2.3 Negotiation Phase

Following receipt, evaluation, and scoring of applications, CAO will engage with applicants in negotiations designed to reach final agreement on two topics: project area boundaries and costs (the "Negotiation Phase").

CAO will negotiate pricing, both with respect to Grant Areas that received no bids into which CAO would like to attract other applicants, and with respect to Grant Areas that received bids but where it may be possible to secure lower pricing. CAO reserves flexibility to negotiate with one or more entities regarding potential pricing, seeking to maximize the reach and value of the BEAD funds. Among the range of circumstances in which CAO may wish to negotiate pricing are the following:

- All applications for a given Grant Area exceed the EHCPLT and CAO negotiates with applicants to reduce the proposed cost. More detail regarding this process is described in Section 4.10 below.
- More than one applicant provides a proposal for a given Grant Area and CAO negotiates with all to secure best and final offers that deliver the best pricing prior to establishing final scoring.
- An applicant proposes to serve a number of different Grant Areas and CAO negotiates lower pricing with the applicant based on the potential award of multiple aggregated Grant Areas.

CAO will additionally negotiate proposal area boundaries. In the event that there exist defined Grant Areas that do not receive any applications, CAO will negotiate with one or more applicants to determine whether and under what circumstances they would be

willing to serve those Grant Areas. CAO may negotiate with one or more entities at a time in order to ensure the maximum reach of BEAD funds.

In sum, CAO believes that flexibility to take the necessary steps in negotiations is an essential element of securing the best, fairest, and most competitive outcome for the BEAD process, particularly given the need for CAO's efforts to develop a broadband solution for 100% of unserved and underserved locations in New York.

4.1.3.2.4 Provisional Awards and Final Proposal

Once CAO and applicants have concluded successful negotiations, CAO will announce provisional awards under the agreed upon terms. These pending awards will be included in CAO's Final Proposal that will be submitted to NTIA following a 30-day public comment period, as required by the BEAD NOFO.

Upon NTIA approval of the Final Proposal, CAO will finalize the provisional awards through contract negotiation and execution with the applicants. CAO will implement NTIA's recommended Sub-granting Accountability Procedures into its formal contracts with subgrantees, which will include: 1) disbursement of funding on a reimbursable basis, to ensure completion of subsidized activities; 2) clawback provisions to allow for the recoupment of funds in the case of broken commitments; and 3) timely subgrantee reporting mandates and robust monitoring procedures aligned with CAO's reporting schedule to NTIA.

4.1.4 Technical Assistance and Administrative Support

To support openness, fairness, and competition in its BEAD grant efforts, CAO plans to provide communication, technical assistance, and administrative support for applicants throughout the process.

CAO has an extensive email list of stakeholders, including service providers, local governments, CAIs, State agencies, and nonprofit organizations. CAO also has a web and social media presence. CAO will use these tools to alert potential applicants of each milestone in the grant application and selection process as well as to provide information on technical assistance opportunities or updated information about program requirements. CAO's partners will be encouraged to further distribute information about the BEAD program through their own email lists and website postings. CAO will also use its website as a repository for potential applicants to access detailed application materials and technical assistance resources, with clear version control notation to ensure that applicants are always able to access the latest guidance.

CAO expects to implement the following process for its BEAD outreach and communications:

- CAO will announce the dates of its Prequalification Phase at least 15 days prior to the opening of the window for acceptance of Prequalification Phase

applications. Potential subgrantees must participate in the Prequalification Phase to submit a project-specific funding proposal during the Scoring Phase.

- At approximately the same time as this announcement of the application dates, CAO will make BEAD application materials available on its website. These materials will include an Application and Program Guide. CAO will provide additional resources on its website to direct potential applicants to third-party resources that may be of use, including those provided by NTIA, NIST, FCC, and others.
- CAO will conduct an online application workshop at the start of the Prequalification Phase. This workshop will provide general instructions, discuss the program's goals and objectives, map out major program milestones, answer questions, and provide other technical assistance. This workshop will be recorded and made available, along with presentation and other supporting materials, on the CAO website.
- Updated program materials and new information will be posted on CAO's website when available. Users will be able to register to receive automatic email notifications when new information is posted or program materials are updated.
- During the Prequalification Phase, CAO will have a dedicated email address available for participants to use to ask questions and request technical assistance.
- CAO will notify Prequalification Phase participants if they are prequalified and eligible to submit a Scoring Phase Application within 30 days of the close of the Prequalification window.
- CAO will allow for reasonable curing to seek to ensure an optimal participation level of qualified ISPs for the Scoring Phase.

CAO expects to follow the same steps detailed above for its Scoring Phase. During the Scoring Phase, CAO will provide details regarding the Grant Areas and associated materials and information. CAO will continue to use all available communication channels to update applicants on milestones, deadlines, and technical assistance resources as they are made available by CAO, NTIA, NIST, FCC, or other relevant partners.

4.1.5 BEAD Grant Process Overall Timeline

The following is a tentative overall timeline for the BEAD grant process:

Process element	Date (2024)
Prequalification materials released	February 15
Prequalification applications due	April 1
Announcement of prequalification determinations	May 1

Process element	Date (2024)
Challenge Process	February 1-May 1 (tentative; dependent on NTIA approval of Initial Proposal Volume I)
Grant Area Determination Process	June 1 to 30 (tentative; dependent on timing of NTIA Challenge Process Validation)
BEAD grant application materials, including Grant Areas, released	July 1 (tentative; will be timed to align with the completion of NTIA's Challenge Process Validation, but no awards will be made until at least 60 calendar days have passed from public release and submission of eligible locations to NTIA)
BEAD grant applications due	September 1 (tentative; within 60 days of release of BEAD grant application materials)
Announcement of provisional BEAD determinations, subject to NTIA approval of the Final Proposal	November 1 (tentative; within 60 days of receipt by CAO of the BEAD grant applications)
Submission to NTIA of the Final Proposal	Within 365 days of NTIA approval of the Initial Proposal Volume II

4.2 Prioritization and Scoring

4.2.1 Prequalification Phase

New York's BEAD application materials will specify the materials and certifications that are required for prequalification, together with the format and date for submission. The materials and certifications will be focused on materials that address financial, managerial, and technical qualifications as well as experience and capacity.

Applicants will be encouraged to ensure that the prequalification materials submitted are appropriate to the scale of application or applications they plan to submit, to enable CAO to prequalify them based on the appropriate size project (for example, an applicant

that demonstrates qualifications to design, build, maintain, and operate a small network will not be considered prequalified to do the same for a large, multi-county network).

Other than materials regarding Fair Labor Standards, the materials submitted during the Prequalification Phase will not be scored but will rather be evaluated to determine whether or not the submitting entity is qualified to participate in the process. Materials regarding Fair Labor Standards will serve two purposes: first, they will be evaluated for prequalification purposes as a critical gating criterion and second, they will be considered as part of the Scoring Phase for award of points per the scoring rubric included in Section 4.2.3.

In the event reviewers find the data submitted to be insufficient or unclear, CAO may choose to cure submissions by providing applicants with an opportunity to clarify or submit additional materials. All requests for clarification or additional submissions will be made in writing and all responses will be required to be in writing, with full documentation. Given the very compressed timeline for the BEAD grant program, CAO will require expedited responses to curing requests.

All entities whose prequalification materials are determined to be sufficient will be qualified by CAO to proceed to the Scoring Phase of the program and submit proposals.

In the Prequalification Phase, CAO will require the following materials for purposes of determining whether prospective subgrantees are qualified to receive awards, in the event their applications score accordingly:

Financial Capability (see Section 4.11.1)

- Certification that the organization has the necessary financial qualifications, capabilities, and resources to successfully participate in the program
- Certification that the applicant is aware of and understands the letter of credit obligations and processes for the BEAD Program, and that the applicant has the qualifications and resources to obtain the required letter of commitment and letter of credit to meet BEAD requirements
- Unqualified audited financial statements from the last three years

Managerial Capability (see Section 4.11.2)

- Current resumes of key management personnel and a narrative description of their expected roles in a BEAD-funded project
- Organizational charts
- Narrative description of the organization’s background and experience managing broadband infrastructure projects of similar size and scope and under similar circumstances; the organization’s resources and readiness to fulfill project requirements; and the organization’s plans regarding independent contractors, consultants, and subcontractors

Technical Capability (see Section 4.11.3)

- Certification that the applicant is fully and properly licensed and technically qualified to conduct funded activities and comply with all post-award obligations
- Certification that the applicant has the processes and resources in place to employ an appropriately skilled and credentialed workforce and that key team members are current on all required credential renewals
- List of business and technical certifications and licenses that will be relevant to BEAD participation that the applicant holds nationally and in New York
- Descriptions of workforce training and certification programs that they rely on, or expect to rely on, to support a continued commitment to a highly skilled and trained workforce
- Narrative description of technical experience designing and constructing broadband infrastructure of similar size and scope and experience operating the network to offer last-mile services

Legal Compliance (see Section 4.11.4)

- A legal opinion from the applicant's legal counsel attesting to the organization's awareness of federal and State laws applicable to BEAD projects, current compliance with all relevant laws, and description of any violations, current or pending investigations, and current or pending legal actions
- Narrative description of processes in place to conduct BEAD-funded activities in full compliance with federal or State laws, including descriptions and documentation of procurement practices
- Documentation of the organization's policies and practices regarding compliance with health and safety laws and regulations

Operational Capability (see Section 4.11.5)

- Certification that applicants have provided a voice, broadband, and/or electric transmission or distribution service for at least two consecutive years or that they are a wholly owned subsidiary of such an entity and attest to and specify the number of years the applicant or its parent company has been operating
- If applicable, details on the applicant's voice and broadband service operations in other states
- Certification of compliance with applicable federal laws and regulations implemented by the FCC, including required Form 477 reporting and compliance with the Broadband DATA Act
- Certification of compliance with applicable provisions of State telecommunications and broadband laws and regulations, including regulations regarding the New York State Public Service Commission (PSC)'s Broadband Assessment Program

Ownership Information (see Section 4.11.6)

- Documentation on ownership structure and shareholder interests, consistent with federal regulations set forth in 47 C.F.R. § 1.2112(a)(1)-(7)

Other Public Funding (see Section 4.11.7)

- A list of applications the applicant submitted or plans to submit related to federal or State broadband funding, and every broadband deployment project that the applicant or its affiliates are undertaking or have committed to undertake at the time of the application using public funds

Environmental and Historic Preservation and Build America, Buy America Act Compliance (see Section 4.5)

- Certification that the applicant has no history of failure to comply with environmental and historic preservation and Build America, Buy America Act (BABA) requirements, and intents to fully comply in the future.

Labor Standards and Protection (see Section 7.1)

- Certification of past compliance with federal and State labor and employment laws in the past three years; or disclosure of any findings of violations
- Details on how the applicant will ensure that it, and its contractors and subcontractors, continue to remain fully compliant with federal and State labor and employment laws, including confirmation that the subgrantee will recertify compliance annually for the duration of BEAD implementation
- Information on the subgrantee's track record and commitment to maintaining high standards of workplace safety and training, including certification of compliance with relevant safety standards and approach to workplace safety committees
- Details on wage and benefits practices and confirmation that staff employed on BEAD-funded projects will be paid prevailing wages and benefits, in accordance with State law
- The anticipated size of the workforce required to carry out the proposed work, including details on whether full- or part-time staff will be used
- Discussion of the applicant's current and planned future approach to project labor agreements

Workforce Readiness (see Section 8.2)

- A plan to ensure that the project workforce will be appropriately skilled and credentialed, including discussion of the applicant's current and planned future practices regarding training, certification, and licensure
- Details on the applicant's labor practices, including workforce union status, current and planned future practices regarding using a directly employed or subcontracted workforce

- For non-union staff, additional details on job titles, size of workforce, and descriptions of training, certification, and/or licensure requirements
- Discussion of the applicant's workforce development efforts including recruiting/training partnerships, local/regional hiring practices, efforts to diversify talent pipelines, employee engagement, workforce training, wraparound services and employee support, etc.

Minority- and Women-owned Business Enterprise (MWBE) and Labor Surplus Area (LSA) Firm Participation (see Section 9.1)

- A plan for meeting CAO-defined MWBE utilization goals applicable to BEAD-funded projects, in accordance with New York State and ESD requirements
- Details on the applicant's, as well as its contractors' and subcontractors', business location(s); self-identification, if applicable, as an LSA firm
- Confirmation that the applicant will take all required affirmative steps (as described in Section 9.1) to promote MWBE and LSA firm participation in BEAD-funded projects

Natural Hazard Risk Mitigation (see Section 11.1.4)

- Details on the applicant's current and future planned natural hazard risk mitigation approach to broadband deployment, and any relevant experience implementing natural hazard risk mitigation measures
- Discussion of the applicant's assessment of climate risks in the specific area(s) in which they plan to propose deploying broadband, as well as any specific mitigation strategies they would employ in such areas

Low-Cost Service Option (see Section 12)

- Confirmation that the applicant understands and will comply with CAO's Low-Cost Service Option requirements
- Certification that the applicant currently participates in the Affordable Connectivity Program (ACP), or will begin participating prior to beginning to offer services over BEAD-funded infrastructure

Middle-Class Affordability Plan (see Section 13)

- Best offers (i.e., price, speed, technology) for unbundled broadband products at $50, $75, and $100 monthly price points

Certification of Nondiscrimination and Civil Rights (see Section 16.3)

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

Cybersecurity and Supply Chain Risk Management (see Section 16.4)

- Certification that the applicant has a cybersecurity risk management plan in place that:
    - Is either: (a) operational, if the applicant is providing service prior to the award of the grant; or (b) ready to be operationalized upon providing service, if the applicant is not yet providing service prior to the grant award
    - 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
    - Will be reevaluated and updated on a periodic basis and as events warrant
    - Will be submitted to CAO prior to the allocation of funds
- Certification that the applicant has a supply chain risk management plan in place that:
    - Is either: (a) operational, if the applicant is already providing service at the time of the grant; or (b) ready to be operationalized, if the applicant is not yet providing service at the time of grant award
    - 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
    - Will be reevaluated and updated on a periodic basis and as events warrant
    - Will be submitted to CAO prior to the allocation of funds

4.2.2 Scoring Phase

Entities approved through the Prequalification Phase will be able to proceed to submit project applications to CAO during the Scoring Phase. CAO's rubric for the Scoring Phase is consistent with NTIA's rules, which specify three primary criteria that together must account for 75% of scoring, as well as secondary criteria that are based on New York's own public policy priorities.

CAO will begin its evaluation of proposals by ensuring that the applicant provided all required materials. Incomplete proposals will not be considered.

Following a determination of completeness, CAO will review and evaluate the proposals based on the following criteria, which can add up to a total possible score of 100.

Consistent with NTIA requirements, some scoring criteria are different for "Priority Broadband Projects" (fiber-to-the-premises) and "Other Last-Mile Broadband Deployment Projects" (other technologies).[13] The discussion below notes the differing criteria or factors where relevant; where clear differentiation is not discussed, that scoring criterion will be identical for both Priority Broadband Projects and Other Last-Mile Broadband Deployment Projects.

4.2.2.1 Primary Criteria

Minimal BEAD program outlay: up to 30 points

CAO will score applications based on the grant amount proposed at the 100% level relative to the benchmarked pricing developed by CAO (see Section 4.6.3) for each defined Grant Area. (Secondary Coverage Percentage proposals will not be scored and will be utilized only for those Grant Areas for which costs exceed the EHCPLT.)

Points will be awarded based on the following formula:

- Proposals that are equal to the benchmark will receive 15 out of a possible 30 points
- Proposals that are equal to or less than 20% of the benchmark will receive 30 out of a possible 30 points
- Proposals that are between 20% and 100% of the benchmark will receive 15 points **plus** the total of 15 multiplied by the percentage discount off the benchmark proposed for grant funding
    - Illustration: proposals for 90% of the benchmark (10% discount) will receive 16.5 points: 15 plus 1.5 (10% of 15)
    - Illustration: proposals for 50% of the benchmark (50% discount) will receive 22.5 points: 15 plus 7.5 (50% of 15)
    - Illustration: proposals for 30% of the benchmark (70% discount) will receive 25.5 points: 15 plus 10.5 (70% of 15)
- Proposals that are more than the benchmark will receive 15 points **minus** the total of 15 multiplied by the percentage above the benchmark proposed for grant funding
    - Illustration: proposals for 10% more than the benchmark will receive 13.5 points: 15 minus 1.5 (10% of 15)
    - Illustration: proposals for 50% more than the benchmark will receive 7.5 points: 15 minus 7.5 (50% of 15)
    - Illustration: proposals for 70% more than the benchmark will receive 4.5 points: 15 minus 10.5 (70% of 15)

[13] "BEAD Program: Initial Proposal Guidance." NTIA, https://broadbandusa.ntia.doc.gov/sites/default/files/2023-10/BEAD_Initial_Proposal_Guidance_Volumes_I_II_10-2023.pdf *at* p. 41.

- Proposals that exceed the benchmark by 100% or more will receive zero points

Affordability: 15 points

For Priority Broadband Projects: Applications will be scored based on applicants' commitments to offer a symmetrical 1 Gbps service to BEAD-funded locations that does not exceed the cost of the same service in any other location in New York or other states in which the applicant offers service. Full points will be awarded to applications that make this commitment in clear and unambiguous terms, without caveats that compromise the commitment. Applications that do not make a clear commitment will receive zero points.

For Other Last-Mile Broadband Deployment Projects: Applications will be scored based on applicants' commitments to offer 100/20 Mbps to BEAD-funded locations that does not exceed the cost of the same service in any other location in New York or other states in which the applicant offers service. Full points will be awarded to applications that make this commitment in clear and unambiguous terms, without caveats that compromise the commitment. Applications that do not make a clear commitment will receive zero points.

Fair Labor Practices: up to 30 points

Up to 30 points will be awarded based on (1) a demonstrated history of compliance with federal labor laws; (2) demonstrated commitments to future compliance with federal labor laws; and (3) the quality and contents of labor practice-related items submitted during the Prequalification Phase, further detailed in Section 7.1.1.

Up to 30 points will be awarded based on a demonstrated record of compliance with federal labor and employment laws. New entrants without a record of labor and employment law compliance can receive points in this category based on specific, concrete commitments to strong labor and employment standards and protections going forward.

Up to 5 points will be deducted for official labor relations complaints or violations in the five years preceding the date of application.

4.2.2.2 Secondary Criteria

Speed to Deployment: 1 point

Based on the BEAD rules, all funded projects must be complete within four years following execution of grant awards. Applicants will be awarded an extra point if they can demonstrate that they will deploy the network in three years or less.

Local and Tribal Coordination: up to 5 points

CAO will award up to 5 points to applicants for demonstrations of support from county governments, Tribal governments (where relevant), other units of government and other community institutions and stakeholders. Consistent with the scoring described below,

review will consider the location of the support relative to the project area, the volume of documents of support, and the clarity and extent of support demonstrated in the documentation. Documents can include such items as official letters, board or council resolutions, commitments of funding, and commitments to purchase services if the project is funded. County or Tribal governments or others may provide letters of support to multiple applicants.

Points will be awarded based on the following:

- If a project area does not include Tribal land and is entirely within a single county, a letter of support from the county government will be worth 5 points. Only if no applicant has a letter of support from the county government will other expressions of support be considered for up to 5 points.
- If a project area does not include Tribal land and includes two counties, a letter of support from both counties will be worth 5 points and a letter of support from one of the counties will be worth 2 points. If no applicant has a letter of support from one or the other of the county governments, then other expressions of support be considered for the remaining 3 points. If no applicant has a letter of support from either county government, then other expressions of support will be considered for up to 5 points.
- If a project area includes both Tribal land and land within a single county, a letter of support from a Tribal government will be worth 1 point and a letter of support from the county will be worth 4 points. Only if no applicant has a letter of support from the relevant Tribal government will other expressions of support be considered for 1 point. Only if no applicant has a letter of support from the relevant county government will other expressions of support be considered for up to 4 points. In the event that the majority of locations in a project area are on Tribal land, this scoring will be reversed (i.e., a letter of support from a Tribal government will be worth 4 points and a letter of support from the county will be worth 1 point).
- If a project area includes only federally recognized Tribal land, a letter of support from the Tribal government will be worth 5 points. Only if no applicant has a letter of support from the Tribal government will other expressions of support be considered for up to 5 points.

Equitable Workforce Development and Job Quality: up to 5 points

Up to 5 points will be awarded based on a demonstrated commitment and plan for adherence to strong labor and employment standards and protections consistent with New York State labor laws (further detailed in Section 7.1.2), and workforce development plans consistent with the New York State WIRED Broadband Act and CAO's workforce development priorities (further detailed in Section 8.2).

Open Access: up to 14 points (for Priority Broadband Projects only)

Open access represents a core value and public policy goal of New York State, reflecting the State's commitment to openness, competition, and opportunity in broadband. Dark fiber open access also represents a desirable outcome for New York in that it can enable mobile and other providers to access remote, rural markets where deployment of their service has been challenging in the past. Projects that fulfill this goal will minimize the need for future road disruption or utility pole attachments. Given this, CAO will award up to 14 points to applicants for making enforceable, binding commitments to open access in ways that enable innovative use of network assets to serve goals such as attracting mobile investment. CAO will not specify how the applicants should propose to deliver open access (e.g., whether at Layer 1, 2, or 3 of the OSI model) or with what characteristics, but will award points based on the extent and concreteness of the applicants' commitments, with respect to the following elements:

- OSI Model layer(s) at which open access will be delivered
- Services proposed and plans for migration of open access to new services over time
- Pricing proposed and plans for updating pricing to address new services over time
- Terms and locations for access and interconnection
- Offer of indefeasible rights of use (IRU) to CAO or its designee(s)
- Duration of the open access commitment

Speed of Network and Other Technical Capabilities: up to 14 points (for Other Last-Mile Broadband Deployment Projects only)

Pursuant to NTIA rules, applications will be scored based on applicants' demonstration of the speeds, latency, and other technical capabilities of the technologies proposed for projects that are not Priority Broadband Projects (i.e., that use technologies other than fiber-to-the-premises).

NTIA requires assigning greater weight to those applications that propose to use technologies that exhibit greater ease of scalability with lower future investment and whose capital assets have longer useable lives over those proposing technologies with higher costs to upgrade and shorter capital asset cycles.

Accordingly, CAO will award up to 14 points to Other Last-Mile Broadband Deployment Projects that can demonstrate the following:

- **Speed of network and sufficient capacity**: 5 points will be awarded to applications that demonstrate that the proposed project can reliably deliver 100/20 Mbps broadband service to at least 80% of unserved locations in the proposed service area. Applications must detail the selection of technology and particular hardware configurations in both backbone and last-mile segments,

including any assumptions and/or calculations around capacity oversubscription, limitations imposed by terrain, and geographic constraints, to definitively demonstrate the connection speed and network capacity requirements can be met. Applicants that do not make this demonstration will be awarded zero points for this criterion.

- **Scalability**: 5 points will be awarded to applications that demonstrate that the proposed infrastructure will be capable of delivering higher speeds in the future, including that the infrastructure will be scalable with respect to capacity to support higher speeds to 80% of currently unserved locations in the proposed service area. Applications must detail the specific approach to scalability both in backbone and last-mile segments of the network, such as increased wireless base station sectorization, hardware upgrades, addition of towers, etc., to include projected capital costs per location associated with upgrades necessary to deliver increased service level thresholds of the applicant's choosing (i.e., 100/100, 500/100, 1000/1000 Mbps). Applications that do not make this demonstration will be awarded zero points for this criterion.

- **Cost-effective future upgrade and capital investment path**: Up to 4 points will be awarded to applications that demonstrate a cost-effective projected technical upgrade path, including a capital investment timeline and costs for equipment refresh and replacement cycles.

4.2.3 Scoring Rubric

***Note**: When this Initial Proposal is submitted to NTIA, it will include a complete and expanded scoring rubric that fulfills NTIA's full guidance and takes the NTIA scoring rubric template as a model. An outline of CAO's proposed scoring rubric is summarized below for public comment, first for Priority Broadband Projects and then for Other Last-Mile Broadband Deployment Projects.*

Table 1: Scoring Criteria for Priority Broadband Projects

Scoring Criterion	Points Available
Primary Criteria	
Minimal BEAD Program Outlay	30
Affordability (Lowest Price Gigabit Service Commitment)	15
Fair Labor Practices	30
Primary Criteria Subtotal	**75**
Secondary Criteria	
Speed to Deployment	1
Local and Tribal Coordination	5
Equitable Workforce Development and Job Quality	5
Open Access	14
Secondary Criteria Subtotal	**25**
Total	**100**

Table 2: Scoring Criteria for Other Last-Mile Broadband Deployment Projects

Scoring Criterion	Points Available
Primary Criteria	
Minimal BEAD Program Outlay	30
Affordability (Lowest Price 100/20 Mbps Service Commitment)	15
Fair Labor Practices	30
Primary Criteria Subtotal	**75**
Secondary Criteria	
Speed to Deployment	1
Local and Tribal Coordination	5
Equitable Workforce Development and Job Quality	5
Speed of Network and Other Technical Capabilities	14
Secondary Criteria Subtotal	**25**
Total	**100**

4.3 Prioritization of Unserved BSLs, Underserved BSLs, and Eligible CAIs

CAO recognizes that unserved locations are the first priority of the BEAD Program, underserved locations are the second priority, and CAIs are the third, with affordable housing and other priorities following the first three. This prioritization is statutorily mandated and aligns with CAO's plans for how to utilize the BEAD funds. New York's internal modeling suggests that the funds available will provide for fiber-to-the-premises

to the vast majority of unserved and underserved locations in New York State.[14] However, CAO believes it is unlikely, given current inflationary pressures and projected demand for broadband construction labor and materials during the BEAD deployment period, that New York will have additional funds left over for CAIs or other locations that are categorized by the BEAD program as lower priority.

Given this analysis, CAO proposes to focus its BEAD funding on unserved and underserved locations. In the event that all unserved and underserved locations can be served with fiber-to-the-premises based on the results of the BEAD application process described above, CAO reserves the right and opportunity to seek additional applications from applicants that were qualified through the Prequalification Phase for service to CAIs.

In the event that BEAD funds are insufficient to deliver fiber to all unserved and underserved locations, applications to serve unserved and underserved locations within high-poverty areas and persistent poverty counties will be prioritized.[15]

4.4 Prioritization of Non-Deployment Projects

Not applicable.

4.5 Environmental and Historic Preservation and Build America, Buy America Act Compliance

The State of New York is deeply committed to the public policy goals of environmental and historic preservation as well as BABA. CAO plans to highlight the criticality of these requirements for potential applicants during the application workshops and in program application materials—and will require that all applicants certify their intention to comply with all related requirements in the Prequalification Phase.

CAO will also require applicants to certify that they have no history of failure to comply with environmental and historic preservation requirements or BABA, to the extent applicable.

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[14] CAO modeled its grant-funded deployment options using a Python-based predictive grant funding analysis tool that leverages highly customizable modules for fiber infrastructure design, RF coverage modeling, cost estimation, and financial modeling powered by hyperscale cloud computers to generate outcomes for hundreds of technology mix iterations and cost structures.

[15] As defined in the BEAD NOFO: "For the purposes of this requirement, high poverty areas are areas in which the percentage of individuals with a household income that is at or below 150 percent of the poverty line applicable to a family of the size involved (as determined under Section 673(2) of the Community Services Block Grant Act (42 U.S.C. § 9902(2)) is higher than the national percentage of such individuals. Persistent poverty counties are counties that have had poverty rates of 20 percent or greater for at least 30 years as calculated by the Economic Research Service in the Department of Agriculture." *See* BEAD NOFO, p. 41.

Any applicant that cannot certify a track record of full compliance will be required to provide detailed narrative and documentation regarding its histories of challenges or noncompliance. In addition, CAO intends that it will actively use its subgrantee monitoring program post-award to verify that applicants are indeed compliant with these requirements.

4.6 Project Area Definition

CAO plans to define project areas through a Grant Area Determination Process in which it will design and specify the geographic boundaries of the Grant Areas for which prospective subgrantees can bid. CAO will make these data available to potential applicants at the time of release of grant materials. Grant Area data will be released in the form of polygons or descriptions of established geographic boundaries (such as counties), accompanied by lists of eligible locations as identified through the State's Challenge Process. (CAO will also develop benchmark pricing for each Grant Area as a tool for scoring cost proposals, but the pricing will not be released.)

CAO anticipates undertaking the Grant Area Determination Process once it understands the final contours of the grantmaking map that results from the Challenge Process that will be run in early 2024 (following NTIA's approval of the Initial Proposal Volume I and CAO's submission of the Initial Proposal Volume II). The Grant Area Determination Process will be conducted by CAO while NTIA is doing its Challenge Process Validation and immediately in advance of release of the BEAD grant materials.

The Grant Area Determination Process will have three elements:

1. Geographic boundaries
2. Alternative unserved and underserved percentage commitment options (Secondary Coverage Percentages)
3. Benchmark pricing

Each of these elements is described in detail below.

4.6.1 Geographic Boundaries

CAO will, based on the results of its cost modeling and other data, as well as the map of unserved and underserved locations that results from the Challenge Process, establish geographic boundaries that take into account:

- **Potential for competition** among applicants to submit competitive and attractive applications to serve those areas. Ideally, Grant Area design will encourage competition among applicants and result in multiple bids.
- **Unserved and underserved locations.**
- **Economic and technical viability and efficiency**. Grant areas will reflect CAO's internal data, modeling, and engineering expertise regarding the most

economically viable grouping of unserved and underserved locations into a single geographic unit for bidding.

- **Community needs**. CAO will endeavor where possible to ensure that boundaries reflect unique local circumstances.
- **Overall program efficiency.** CAO will consider the operational burden of reviewing applications in determining Grant Areas.

CAO anticipates that many Grant Areas will comprise a larger geographic area such as a county, but that some Grant Areas may be portions of counties that are designed in recognition of other geographic features. The county is under consideration as a potential boundary because it allows for the use of established geographic boundaries and efficient design. There may be some areas in which county boundaries do not align with efficient fiber design parameters or the locations of unserved and underserved locations; in these scenarios, CAO will design the Grant Areas based on alternative geographic parameters which might include, e.g., existing network infrastructure or boundaries like highways, rivers, and railway lines that naturally define broadband infrastructure architecture because traversing them is complex and costly.

Applicants will be required to submit separate grant applications for each Grant Area to enable CAO to make like comparisons among applications and score competing applications for each Grant Area fairly.

4.6.2 Secondary Coverage Percentage Commitment Options

Applicants will be required to submit a bid to serve 100% of unserved and underserved locations in the Grant Area and to propose an associated cost. In addition, CAO's design of potential Grant Areas will include another critical parameter: a coverage percentage below 100% of unserved and underserved locations within a Grant Area to which applicants must commit to deploy broadband (hereinafter referred to as the Secondary Coverage Percentage). In every Grant Area, there will be individual locations that CAO’s engineering and economic modeling suggests will be so costly to build with broadband infrastructure that including those locations as required deployment targets may make the entire areas non-viable for bids at a cost that fits into the finite BEAD budget and could reduce or eliminate the chance of any bids being received for that Grant Area.

Given these challenges, CAO has over the course of 2023 undertaken a modeling process to understand technical, financial, and economic parameters of building broadband to all unserved and underserved locations in New York. The projections from that process will be utilized to identify locations that may create the risks described above. For each Grant Area, CAO will assess the relative percentage of locations that fit into this category and allow for applications that include Secondary Coverage Percentage commitments. CAO will not designate the specific locations to remove. Rather, the applicant will identify the unserved and underserved locations that most significantly impact the cost of their proposal and account for the Secondary Coverage

Percentage of all unserved and underserved locations in the project area. Applicants will then be required to submit with their applications a list of the eligible unserved and underserved locations that they choose to remove from their bid, consistent with the Secondary Coverage Percentage allowed. The applicants will be advised that removal of locations based on factors other than high cost is greatly disfavored by CAO and that applications that are aggressive in this way may be disqualified or, in the event that CAO believes it warranted, the Grant Area may be put out for bid in a subsequent application round.

In some cases, a Tertiary Coverage Percentage, an additional, lower percentage of unserved and underserved locations for which a bid can be submitted, will also be included, if CAO concludes that including the third category would increase the likelihood of receiving attractive and/or competitive bids.

While the exact percentages specified for Secondary Coverage Percentages will vary based on Grant Area and CAO's data analysis, in no case will any of the options for a given Grant Area be lower than 95% of eligible locations and, in all cases, pricing for 100% of locations must be provided.

The following is the format in which applicants will be able to submit alternative applications for a single Grant Area, based on the above approach:

Applicants may submit Secondary Coverage Percentage pricing to deploy broadband to different percentages of unserved and underserved locations.

Bid Area [number]	Percentage of eligible locations	Cost per eligible location	Total requested grant funds for Grant Area
	100% (mandatory)	$_____	$_____
	[secondary number]% (optional)	$_____	$_____
	[tertiary number]% (optional)	$_____	$_____

CAO plans to afford applicants the option of submitting proposals for one or more of the categories of varying Secondary Coverage Percentage of required unserved and underserved locations and understands that pricing for each category may vary significantly. Indeed, that varied pricing is part of CAO's goal for this strategy as it will allow for the option of funding proposals to serve *almost* all unserved and underserved locations in a Grant Area in the event that no cost-effective application is received for 100% of unserved and underserved locations. As a result, this Secondary Coverage Percentage strategy will provide a range of alternative percentage options for how CAO

can use its finite BEAD funds to reach as many unserved and underserved New York locations as possible with fiber in the most efficient and impactful way.

CAO anticipates that for some Grant Areas it will receive multiple applications from multiple entities; so long as the pricing for 100% of locations is below the EHCPLT (see Section 4.9 for details) and thus viable given the statewide need for funding, CAO will make awards to applications that propose to serve 100% of locations. In the event that CAO receives two or more identical (in terms of locations and cost) proposals for identical Grant Areas, then CAO will select the proposal with the highest score.

However, CAO understands the economic challenges and high costs associated with some very remote or costly locations – and that deploying broadband to those locations may cause an entire Grant Area to exceed the EHCPLT -- and thus seeks Secondary Coverage Percentage pricing to reach nearly all unserved and underserved locations in the Grant Area to increase the chances of funding the vast majority of the state's unserved and underserved locations with fiber.

Furthermore, CAO has designed this Secondary Coverage Percentage strategy with an eye toward creating as much competitive pressure as possible so that applicants will provide the most competitive and well-priced bids. Applicants that understand that their competitors might be submitting applications based on multiple options will be incentivized to offer more competitive applications.

4.6.3 Benchmark Pricing

CAO's development of Grant Areas will include development of benchmark pricing, aggregated for the entire Grant Area, based on CAO's internal engineering and economic modeling. The benchmark pricing will provide a mechanism by which CAO will be able to fairly score applications statewide based on the same formula, applied to local costs.

For each designated Grant Area, CAO's benchmark price will be generated through CAO's modeling. This strategy is designed to enable CAO to score applications in a fair way. Ideally, the strategy will serve to restrain applicant windfall pricing because applicants will know that their proposals will be scored based on a benchmark, as will their competitors'.

The benchmark costs will be derived in part from CAO's cost model, which represents a customized engineering and financial modeling tool whose inputs have been developed over the course of 2023 based on local and regional data regarding capital costs, operating costs, and revenue opportunities in various parts of New York State. The benchmarks for grant awards are generated through a Python-based predictive grant funding analysis tool that leverages highly-customized modules for fiber infrastructure design, RF coverage modeling, cost estimation, and financial modeling, powered by hyperscale cloud computers to generate outcomes for technology mix iterations and

cost structures. The tool allows CAO to develop an area-by-area benchmark to evaluate funding proposals and proposed match commitments.

For the purpose of evaluating grant applications, the benchmark price by Grant Area will be a critical tool in scoring, as described in Section 4.6.3. The benchmark price will not be released to applicants but will be kept confidential and used by CAO only for the purpose of scoring.

4.7 Approach to Subsequent Funding Rounds if No Proposals Are Received

In the event no proposal (or no viable proposal) is received for any given Grant Area, CAO plans to undertake one or both of the following processes, depending on the circumstances.

1. First, CAO anticipates undertaking negotiations with one or more applicants that have bid for adjacent areas to determine whether other applicants would be willing to take on commitments to fund those locations, based on costs that will be negotiated between the applicant and CAO. CAO may choose to negotiate with one or more applicants to maximize the chances of determining a solution for those locations.
2. Second, CAO anticipates that, depending on circumstances, it may choose to undertake a second (and possibly third) competitive process to formally attract bids for the Grant Areas that do not receive proposals and/or for the locations that are excluded by applicants through the Secondary Coverage Percentage process. If CAO does choose to put these Grant Areas and/or locations out for new applications, the process will be managed in a fair, open, and competitive fashion to enable all eligible entities to participate.

CAO reserves for itself the flexibility to undertake one or both of these processes following receipt of applications. CAO believes that the flexibility to undertake these processes based on real-world circumstances will increase the competitive pressure on applicants and for that reason declines to limit its options in this regard.

4.8 Projects on Tribal Lands

CAO does not intend to award any funds for deployment on Tribal Lands without written approval from Tribal Nations. Furthermore, CAO believes that applicants should be deeply engaged with Tribal authorities in developing their applications to build on Tribal Nation land and seeking support and approval.

To incentivize potential applicants to engage with, collaborate with, and understand the needs of Tribal Nations on whose land they propose to deploy broadband, CAO has assigned up to 5% of all available points in scoring applications to indications of support from Tribal Nation authorities for applications that propose to deploy broadband on

Tribal Nation land. While lack of pre-application Tribal consent will not be a disqualifying factor, an indication of support will be a significant benefit in scoring.

CAO anticipates requesting during the negotiation process that applicants secure written support from Tribal authorities if such documents have not already been provided. Documents requested during the negotiation process will not count toward scoring so that applicants will be incentivized to engage with Tribal Nations in advance of submitting their applications and to submit complete applications inclusive of indications of support from Tribal authorities.

Provision of such documents will be a required element for any applicant to be determined to be a presumptive awardee. In the event that a presumptive awardee cannot provide documentation of support and approval from Tribal authorities, CAO will use the negotiation process to engage with other applicants and/or to meet with Tribal authorities to understand their preferences.

CAO believes that these parameters and processes for Tribal engagement and consent to proposed projects on Tribal Lands will result in more equitable and informed outcomes that benefit both the State and Tribal Nations.

4.9 Identifying the Extremely High Cost Per Location Threshold (EHCPLT)

CAO will determine the Extremely High Cost Per Location Threshold (EHCPLT) once it has received all grant applications and will use it to allocate its BEAD funding based on the applications received.

CAO will develop the EHCPLT using the proposed grant funding amounts in the applications received and will iterate on the EHCPLT based on feedback and outcomes from the negotiation process.

CAO will develop the EHCPLT in order to determine at what cost per unit (if any) end-to-end fiber is too costly to ensure 100% broadband coverage with the funds provided in the BEAD allocation.

4.10 Utilizing the EHCPLT

Given CAO's goals of achieving 100% broadband statewide, while maximizing fiber-to-the-premises, CAO proposes the following overall approach: first, CAO will determine which proposals for 100% of eligible locations in a Grant Area exceed the EHCPLT and will consider whether to fund applications for lower percentages; and second, CAO will consider whether to fund alternative technologies where Priority Broadband Projects exceed the EHCPLT. The approach is described below.

1. CAO will review applications to determine whether there exist sufficient funds to fund all of the highest-scoring fiber applications for 100% coverage in all Grant Areas. If this is the case, there will be no need for the EHCPLT.
2. If CAO determines that there are insufficient funds, it will establish the EHCPLT through analysis of the pricing data submitted statewide and other data sources as necessary.
3. Beginning with the most costly average per location Grant Area for which the highest scoring 100% fiber coverage application is above the EHCPLT, CAO will determine if the Secondary Coverage Percentage proposal from the highest scoring applicant is below the EHCPLT. If the applicant did not provide a Secondary Coverage Percentage proposal, CAO will request one that is below the EHCPLT. If the applicant provided a Secondary Coverage Percentage proposal that is above the EHCPLT, CAO will request one that is below the EHCPLT.
4. If the applicant cannot provide a proposal below the EHCPLT, then CAO will repeat the process with the next highest scoring applicant. If there is no other applicant, CAO will negotiate with the sole applicant for the maximum end-to-end fiber coverage percentage within the Grant Area or with applicants in adjacent Grant Area to include additional locations, or both.
5. CAO will repeat the above steps for each Grant Area in which the highest scoring 100% fiber coverage application is above the EHCPLT. This succession of steps will be repeated until all Grant Areas have a fiber award, either at 100% coverage or at a lower Secondary Coverage Percentage, within the funding available.
6. If it is not possible to secure through the process above awards for fiber for all Grant Areas because there exist Grant Areas for which no applicant will agree to deploy fiber below the EHCPLT, CAO will then evaluate applications that propose an alternative, non-fiber technology that meets the BEAD program's requirements for Reliable Broadband Service.
7. If it is not possible to secure through the process above awards for alternative, non-fiber technology that meets the BEAD program's requirements for Reliable Broadband Service, CAO will then consider applications for non-fiber technologies that *do not* meet the BEAD program's requirements for Reliable Broadband Service (while otherwise satisfying the Program's technical requirements) because no technology meeting the Reliable Broadband Service requirements can be deployed for less than the EHCPLT in those Grant Areas.
8. For all Grant Areas for which no satisfactory application can be funded, as well as for locations that are excluded from funding under the Secondary Coverage Percentage process, CAO may undertake an additional grant round and seek

alternative proposals or may otherwise seek alternative solutions for securing broadband to those areas and locations.

4.11 Subgrantee Qualifications

CAO will require potential subgrantees to demonstrate their qualifications through a series of application questions and document requests. Applicant responses and documentation will be collected through an online portal and analyzed to support an informed assessment of the potential subgrantee's capability to meet the obligations of the project.

4.11.1 Financial Capability

CAO's Prequalification and Scoring Phase applications will require potential subgrantees to provide narrative responses, certifications, and documentation to demonstrate financial expertise and available resources to meet program requirements and successfully complete a funded project.

4.11.1.1 Officer Certifications

As part of the Prequalification Phase, CAO will require a certification from an officer or director of a prospective subgrantee that the organization has the necessary financial qualifications, capabilities, and resources to comply with all program requirements and successfully participate in the program.

Only prequalified applicants will be allowed to submit applications for project funding during the Scoring Phase. During the Scoring Phase, applicants will be required to submit project-specific certifications by an officer or director of the company. The organization will certify that it will have sufficient financial resources to successfully complete its proposed project and will further certify that it understands the program will use a reimbursement model, requiring subgrantees to commit resources to construct the network and begin service prior to receiving grant award funding as reimbursement for eligible expenses.

Additionally, during the Scoring Phase, CAO will require certifications from the applicant that it will have sufficient financial resources to provide the pledged matching funds as required by the program rules. Applicants will also be required to certify that they have the financial resources to support all project costs necessary to complete the project, even if those costs exceed the amount of grant award and pledged matching funds.

4.11.1.2 Letter of Credit

***Note**: On November 1, shortly before CAO released this draft document for public comment, NTIA provided new guidance and a waiver regarding the letter of credit requirement. NTIA's new guidance is located at https://broadbandusa.ntia.gov/funding-programs/policies-waivers/BEAD-Letter-of-Credit-Waiver. CAO seeks input and*

feedback from stakeholders regarding how to address the waiver and new requirements. The language below was developed based on NTIA's original guidance, which is no longer current as of November 1.

BEAD Program rules require subgrantees to obtain an irrevocable standby letter of credit from a qualified financial institution as part of its demonstration of financial capability to participate in the program and successfully complete a project. Pursuant to BEAD Program rules and the BEAD NOFO (Section (IV.D.2.a.ii), CAO will implement a letter of credit process using the framework adopted by the FCC for its Rural Digital Opportunity Fund (RDOF) Program (47 C.F.R. §54.804(c)).

CAO will post a model letter of credit on its website as part of the BEAD application materials and will discuss the requirements for a letter of credit during its Prequalification and Scoring Phase application workshops and additional technical assistance outreach.

As part of the Prequalification Phase, CAO will require participants to certify that they are aware of and understand the letter of credit obligations and processes for the BEAD Program. Participants in the Prequalification Phase must further certify that they have the qualifications and resources to obtain the required letter of commitment and letter of credit from an eligible financial institution in an amount of no less than 25% of the subaward amount, per NTIA's requirements.

During the Scoring Phase, applicants will be required to present a letter of commitment from a qualified financial institution. CAO will define a "qualified financial institution" as one that meets the program rules for the FCC's RDOF Program (47 C.F.R. §54.804(c)(2)). This definition presents the applicants with a choice of different types of financial institutions to request a letter of commitment and ultimately fund the required letter of credit.

This letter of commitment must describe the type of financial institution that is making the commitment using the categories in 47 C.F.R. §54.804(c)(2). The letter of commitment must also state that the financial institution stands ready to issue an irrevocable standby letter of credit for the proposed project in the required amount and must specify the expected amount. The financial institution must also state that it has reviewed the model letter of credit and is prepared to comply with all terms and conditions for the letter of credit under this program.

Upon completion of the Scoring Phase, successful subgrantees with awarded projects will be required to obtain their irrevocable standby letters of credit from the previously committed financial institutions.

Submission of this letter of credit will be a condition of a final award agreement. A copy of the letter of credit for each funded project must be submitted directly from the issuing financial institution within 30 days of the notification of the award and prior to the

finalization of the final award agreement. CAO will ensure that funding will only be committed or distributed upon submission of a proper letter of credit.

As an additional condition of the final award agreement, subgrantees will be required to submit a bankruptcy opinion letter from legal counsel that states the letter of credit is drafted in such a way that under a Title 11 bankruptcy proceeding the bankruptcy court will not treat the letter of credit or proceeds from the letter of credit as "property" of the subgrantee's bankruptcy estate under Section 541 of the United States Bankruptcy Code.

4.11.1.3 Financial Statements

In addition to the certifications discussed above, CAO will require potential subgrantees to submit documentation of their financial capabilities. During the Prequalification Phase, participants will be required to submit three years of audited financial statements. These financials must be audited by an independent certified public accountant and conform to industry standards.

These financial statements should be "unqualified" and the subject of a clean financial audit. If the submitted statements are containing "qualifications" by the auditor for any of the three years, the potential applicant must describe and explain the qualification, the reason for the qualification, and measures taken by the company to address the qualification, if applicable.

If a Prequalification Phase participant does not have three years of audited financial statements in the ordinary course of business, it must describe the circumstances and reasons for the lack of audited financials and provide three years of financial statements that contain substantially the same level of detail and information. A Prequalification Phase participant without audited financial statements must certify that it will provide three years of audited financials within three months of submitting the Prequalification Phase application.

Other entities that may have alternative financial reporting requirements, such as public entities, will be allowed to submit relevant and applicable financial documentation that provides substantially similar information and that will allow CAO to substantiate the public entity's financial qualifications and capabilities to participate in the program. A certification by an officer of the entity and a narrative explanation must accompany the submitted financial documentation.

During the Scoring Phase, CAO will review these financial statements together with the applicant's submission of project-specific financial documentation discussed below, such as budgets, capital expenditures, and pro forma business case analyses, as part of the applicant's overall showing of financial qualifications and capability.

4.11.1.4 Financial Sustainability

During the Scoring Phase, CAO will request specific and detailed documentation and narrative descriptions of the applicant's business plans, budgets, and timelines for the proposed project.

To assess the financial sustainability of a proposed project, CAO will require applicants to complete and submit a budget narrative, proposed budget, and pro forma business case analysis. Applicants will be required to use templates provided by CAO for these submissions.

Applicants will be allowed to upload additional documentation that they believe will complement the template information and will present a more complete picture of the applicant's financial capabilities and the proposed project's financial sustainability.

The application budget narrative template will require applicants to provide a detailed breakdown of the expected budget for standardized expense categories. Additionally, the narrative will require a description of each expense, the entity or team responsible for that budget expense (if applicable and if known), and how each expense relates to the project objectives. If the applicant will be providing a cash or in-kind match in this cost category, this must be noted and explained in the justification to include a break-down of the grant and match share of each proposed cost.

CAO will require applicants to demonstrate that costs proposed for this grant program will be reasonable, allowable, allocable, and necessary for the supported activity. The Scoring Phase Application, as well as the Program Guide, will reference 2 C.F.R. Part 200 for applicable administrative requirements and cost principles. These program materials will also discuss program objectives and describe the specific eligible and ineligible costs and activities. CAO will provide additional materials and technical assistance to support this element of applicants' submissions.

Applicants will also submit templates to present a pro forma business case analysis to present their financial projections to demonstrate sustainability. These templates will ask for assumptions regarding take rates, churn, revenue-per-user, operating expenses, cash flow, and capital expenditures over the course of the construction and start-up operations for a 10-year period. The template will also request a proposed project budget with standard categories that correspond with the cost categories in the template budget narrative.

By standardizing this application requirement through the use of templates, CAO can review the financial sustainability of each project in a consistent, fair, and transparent manner.

CAO will further review these materials, in combination with the audited financial statements submitted during the applicant's Prequalification Phase, to validate the showing of financial sustainability. CAO will additionally consider the expected growth of

the project and ongoing benefits to the community beyond completion of the build and disbursement of grant funding.

However, recognizing that applicants may have different internal record keeping and business planning processes, in addition to the required template information, CAO will also accept additional documentation that gives applicants opportunity to present supplementary demonstration of financial sustainability tailored to the proposed project.

CAO will ensure that requests for the pro forma and business plan information in this section of the Scoring Phase application will be complementary to, not duplicative of, documentation provided by the applicant in response to other sections of the application or the applicant's Prequalification Phase submissions. To avoid inefficient and duplicative submissions, applicants will be allowed to reference submissions from other parts of its application to satisfy these requirements.

4.11.2 Managerial Capability

CAO will require potential subgrantees to demonstrate managerial capability to successfully complete and support a BEAD-funded broadband network. CAO will request documentation during both the Prequalification Phase and the Scoring Phase application. The potential subgrantee's showing of its managerial capability is expected to be comprehensive and robust and demonstrate a commitment to long-term success of the project well beyond the period of construction. CAO expects to put a detailed reporting framework in place that will require successful subgrantees to demonstrate ongoing commitment of resources, stable leadership, and continued improvement of processes and services to the funded area.

4.11.2.1 Key Management Personnel Resumes

During the Prequalification Phase, participants will be required to provide current resumes of all key management personnel, as well as a narrative discussion of each individual's expected role in a BEAD-funded project. Each of the identified individuals shall be an employee of the organization, have at least five years of experience in the same or similar role within the communications industry, and have the demonstrated experience, skills, and authority to successfully fulfill the obligations of the role.

CAO will expect Prequalification participants to identify and submit resumes for personnel in current roles such as officers and directors of the organization, executive level management, and those in financial planning and strategy, technical design, risk management, equipment procurement, operations, and planning roles.

4.11.2.2 Organizational Charts

In addition to resumes for key individuals within the organization, Prequalification Phase participants will be required to submit detailed organizational charts of the organization's structure, key management personnel, and relevant operational teams. These charts must also provide information regarding the organization's parent company and

affiliates, if any. The organizational chart is expected to correspond to the other elements of the entity's showing of managerial capability, including mapping back to each identified key management personnel and functional teams. The applicant should describe any recent or expected changes to the organization's structure, processes, and planning that may impact its BEAD project efforts.

4.11.2.3 Organizational Experience and Qualifications

As an additional part of the Prequalification Phase, applicants will be required to provide a narrative description of the organization's background and experience managing broadband infrastructure projects of similar size and scope and under similar circumstances, such as the timeframes, reimbursement models, and geographic characteristics of such projects.

The applicant's narrative must also describe the organization's experience, resources, and readiness to provide the required service offerings, level of service, and maintenance over the completed network. The organization will be required to describe plans to maintain a sufficient level of management resources through training, retention, and recruitment activities to support its service delivery efforts throughout the federal interest period.

The entity will be expected to also describe and provide documentation regarding any independent contractors, consultants, and subcontractors that it plans to retain to supplement its managerial capabilities. This description should include the scope of the third-party contractor's role and the expected term of the engagement.

An applicant to the Prequalification Phase that is a new entrant, or a newly formed consortium will be required to demonstrate how it will develop its organization's managerial expertise and resources through the recruitment of directly employed key management personnel with the requisite leadership experience of at least five years in prior roles and positions in the communications industry.

4.11.2.4 Project-Specific Managerial Requirements

While potential subgrantees will be expected to make their managerial capability showing during the Prequalification Phase, applicants will also be required to provide additional data and descriptions of management capabilities to specifically address any unique needs of the proposed project that is the subject of the Scoring Phase application. This project-specific management showing should reflect and correspond to other elements of the Scoring Phase application including financial capability, network design, budgeting, and planning.

For example, if a proposed project will primarily serve a rural area, applicants should include specific references to key management personnel, organizational teams, and the entity's general experience with projects in similarly rural areas. Similarly, if an applicant proposes a project that will serve significant numbers of multi-dwelling-unit buildings or utilize a unique construction technique, applicants should highlight the

experience of the entity or its management personnel in those areas. CAO will require information that demonstrates that the applicant has sufficient managerial capabilities to support a successful BEAD-funded project, with specific reference to the unique characteristics and needs of the project.

4.11.3 Technical Capability

During the Prequalification Phase, participants will be expected to demonstrate their technical capability to participate in the program and successfully complete a BEAD-funded project. This showing will complement the applicant's management capabilities and will provide CAO additional detail to substantiate overall technical expertise, knowledge, and capabilities as well as information about the applicant's federal and State technical certifications, licenses, and standards.

4.11.3.1 Officer and Director Certifications

Prequalification Phase participants will be required to provide certifications from an officer or director of the company that they are fully and properly licensed in New York to conduct funded activities and comply with all post-award obligations.

Participants must also certify that they are technically qualified to complete and operate a broadband network and that they are capable of carrying out BEAD-funded activities in a competent manner. Participants will further certify that they have the processes and resources in place to employ an appropriately skilled and credentialed workforce and that key technical personnel and technical team members are current on all required training, licensing, and license renewals.

CAO will provide a list of required licenses and certifications as part of the application materials posted on its website and discussed during the Prequalification Phase workshop.

4.11.3.2 Certifications and Licenses

In addition to the certifications from an officer or director, Prequalification Phase participants will be required to provide a list of the business and technical certifications and licenses that will be relevant to their participation in the BEAD Program that it holds nationally and in New York. This list will include certifications and licenses held by key technical personnel as well as those held by the organization. The list will be required to include unique identifiers and license numbers to allow CAO to validate the reported data.

Prequalification Phase participants will also submit descriptions of workforce training and certification programs that they rely on, or expect to rely on, to support a continued commitment to a highly skilled and trained workforce. These programs should include certified apprenticeship programs, community college curricula, and for-profit certification programs, programs offered by trade and labor unions, as well as industry sponsored programs.

Information regarding certifications, training, and licensing of key technical personnel submitted as part of this element of the Prequalification Phase will be considered complementary to and not duplicative of the information and data submitted in other elements of the application. Applicants will be encouraged to cross-reference materials to avoid duplicative submissions.

4.11.3.3 Narrative Description

Prequalification Phase participants will also be expected to provide a narrative description of the entity's experience designing and constructing broadband infrastructure projects of similar size and scope and experience operating the network to offer last-mile services. This description should reference the key management personnel referenced in the prior application section as well as the experience and expertise of the technical teams the organizations will use to design, construct, and operate the proposed project.

4.11.3.4 Project-Specific Certifications

As part of the Scoring Phase application process, CAO will require applicants to list the employment categories, job titles, and job descriptions that will be necessary to successfully complete the proposed project. Applicants will also be required to provide any additional certifications, licenses, or other qualifications that are unique and specific to the proposed project and are supplemental to the information provided as part of the Prequalification Phase.

Applicants must provide supporting documentation to demonstrate that they have completed, or are in the process of completing, these additional requirements to become fully and properly qualified to successfully complete the proposed project. Each applicant will also be required to describe the processes it will have in place to track and maintain required certifications, licenses, and training programs for construction and post-construction activities to ensure that the organization will maintain a highly skilled workforce throughout the federal interest period of the project.

4.11.3.5 Description of the Proposed Project

As part of the Scoring Phase process, applicants will be required to provide a detailed description of the proposed project. Applicants will be encouraged to review the Prioritization and Scoring Phase sections of the application (discussed in Section 4.2) to ensure that the project description submitted in this section of the application will satisfy program requirements and related scoring rubric elements.

This submission will consist of the following required elements:

- Network design and diagrams using shapefiles that display fiber routes, deployment methods, interconnect points, and required right of way usage
- Narrative descriptions of the geographic location, characteristics of the local community, anticipated labor requirements, and other related information that will provide CAO with a complete picture of the community to be served

- Descriptions of the proposed project's technical specifications and design, including project elements such as the proposed miles of fiber, number of interconnection points, technology types to be deployed, deployment method (e.g., aerial, buried), number of passings, and anticipated speeds and latency of the services to be offered over the completed network.
- Deployment timelines and milestones that reflect a construction and installation process of no longer than four years, including planning, design, procurement, construction, installation, network turn-up and testing, and service initiation.
- In addition to the budget narrative and pro forma analysis provided as part of the showing of financial sustainability (including anticipated take rates over time, average revenue per user, churn, and other related elements), this section of the application will require applicants to provide documentation of project costs, operational costs, and budgets and to connect these showings to other sections of the application to create a comprehensive description of the proposed project and showing of technical and financial feasibility.

CAO will review the timelines and milestones for the proposed project to ensure that they correspond and map directly with the capital expenditures and schedules provided as part of the applicant's showing of financial sustainability for the project.

CAO will also preview the description of the proposed project's technical specifications, network design, and diagrams to ensure that the related project budgets, financial analysis, and business case pro forma analysis support the applicants' project-specific financial sustainability showing.

As each of these application elements must correspond and connect with each other to present a comprehensive picture of the proposal project, CAO intends these showings to be complementary and not duplicative. Applicants can reference attachments and information provided in other parts of the application.

4.11.3.6 Professional Engineer Certification

To support CAO's analysis of an applicant's technical capabilities, as well as the reasonableness and benefits of the proposed project, the applicant will be required to produce a certification by an independent professional engineer during the Scoring Phase. CAO will require that the certifying engineer holds all required professional licenses from the State of New York.

CAO will provide a sample certification as part of the application guidance materials. This certification must state that the engineer has reviewed all necessary elements of the proposed project, including descriptions and documentation of the network design, build-out timelines, business case, and budgets. The engineer must certify that the proposed project meets all applicable program requirements and is designed to be successfully completed and capable of meeting all performance commitments and requirements within the proposed timeline.

The applicant will be required to upload documentation of the professional engineer's licenses as well as any written reports, letters, or analysis provided by the engineer regarding the proposed project.

4.11.4 Compliance with Applicable Laws

CAO's Prequalification Phase will require participants to provide a legal opinion by an attorney licensed in New York that the organization is aware of the federal and State laws applicable to BEAD-funded broadband deployment projects and that the organization possesses the qualifications and resources to perform BEAD-related commitments in compliance with all applicable federal and State laws.

The legal opinion will be required to further attest to the organization's current compliance with all relevant federal and State laws and describe any violations of applicable laws and regulations, current or pending investigations, and current or pending legal actions.

The legal opinion must be accompanied by a description of the expertise and qualifications of the attorney and demonstration of the attorney's familiarity with relevant areas of the law including preemption and issues of jurisdiction. The attorney must also describe their familiarity with the operations of the organization and the documents, policies, and procedures that they reviewed to render the opinion.

In the BEAD application materials, CAO will reference the types of laws that Prequalification participants must consider, including federal procurement laws such as applicable Build America, Buy America (BABA) requirements, the Secure and Trusted Communications Networks Act of 2019 (47 U.S.C. 1608), New York State-specific procurement regulations, federal Uniform Guidance regulations, Department of Commerce Standard Terms and Conditions for grant funding, federal and State environmental and historic preservation regulations, and any specific award conditions that CAO or NTIA may develop. CAO will also consult with other State and federal agencies to incorporate additional laws and regulations applicable to BEAD program projects. In the event of a conflict between federal, State, or local regulations, CAO will require compliance with the most stringent obligations and requirements to the extent those obligations are not preempted by applicable federal law.

CAO will also require Prequalification Phase participants to provide a narrative description of the processes they have in place to conduct BEAD-funded activities in compliance with federal and State laws, including descriptions and documentation of procurement practices. Additionally, participants shall be required to provide an explanation of any special circumstances or considerations that may prevent compliance with specific applicable laws. The narrative must address specific requirements and discuss the participant's plans to mitigate the impact of any noncompliance on its participation in the program.

Separately, CAO will also require Prequalification Phase participants to certify that they have no history of failure to comply with environmental and historic preservation or BABA requirements (see Section 4.5), to the extent applicable.

CAO will further require participants in the Prequalification Phase to certify that they have, or will have, processes in place to monitor and support compliance with specific State and federal safety regulations applicable to work on BEAD program projects, including federal Occupational Safety and Health Act and related State and federal regulations, including those under the New York State WIRED Broadband Act.

As part of this showing, CAO will require participants to provide documentation of the organization's policies and practices regarding compliance with health and safety laws and regulations. Participants will also be required to provide documentation of communications with workers and worker representative organizations regarding the applicable labor laws and fair labor standards, as well as the formation of worker-led health and safety committees. Documentation of a participant's outreach to workers on these topics may include sample emails, copies of posters, worker surveys, worker meetings, phone call and social media scripts, as well as organizing activities by worker-led organizations.

4.11.5 Operational Capability

4.11.5.1 Experience Offering Voice and Broadband Services

During the Prequalification Phase, CAO will require participants to provide a certification by an officer or director of the organization that it possesses the operational expertise, capabilities, and resources to successfully complete and operate a BEAD funded project. The certification must specify that the organization has at least two years of experience providing voice, broadband, or electric transmission or distribution services to end users or is a wholly owned subsidiary of a parent entity that has two years of operational experience in the communications industry.

If a Prequalification Phase participant referenced operations in other states as part of its demonstration of managerial, technical, or operational capabilities, the applicant will be required to provide a list or chart describing operations providing voice and broadband services in other states. The list must include licensing and certification identifiers, years of operating experience, and descriptions of the services provided in each state, either by the organization directly or by its affiliates or parent organization.

4.11.5.2 Compliance with FCC and New York Public Service Commission Regulations

Prequalification Phase applicants will be required to provide a certification that they are in compliance with any applicable federal laws and regulations implemented by the FCC, including submission of required reporting under the FCC's Form 477 regulations for reporting deployment and subscription data. This certification should also include

compliance with the Broadband DATA Act (Pub. L. No 116-130 (2020)) and implementing regulations including the FCC's Broadband Data Collection process.

Additionally, Prequalification Phase participants will be required to certify compliance with applicable provisions of State telecommunications and broadband laws and regulations, including the reporting obligations set out in the Comprehensive Broadband Connectivity Act of 2021 (codified in Consolidated Laws of New York, Chapter 48 (Public Service Law), Article 11, Section 224-c) and the related regulations regarding the New York State Public Service Commission (PSC)'s Broadband Assessment Program, as they are updated from time to time (PSC Case No. 22-M-0313). If the participant cannot provide the required certification regarding these PSC and FCC regulations, it will be required to provide a narrative explanation of any pending or completed enforcement action, litigation, or other action regarding violations or non-compliance with these applicable regulations, and a description of any efforts by the organization to cure the noncompliance or violations of the applicable regulations.

4.11.5.3 Electric Service Providers and New Entrants

If the Prequalification Phase participant is a provider of electricity transmission or distribution services without two years of experience offering communications services, or is a new entrant to the communications market, the participant will be required to provide additional documentation of its operational capabilities to successfully complete and operate a BEAD-funded project.

Such documentation will be considered if it can substantiate the expertise and resources of the organization to deploy and operate a broadband network in compliance with BEAD Program requirements. Such documentation could include additional operational or financial reports that the electric service provider or new entrant may have originally submitted to a financial institution or applicable regulatory agency. These additional reports must be accompanied by a certification from an officer or director of the organization that they are true and correct copies of the reports originally provided to the financial institution or regulatory agency.

Electric service providers and new entrants will also be required to provide documentation of plans to acquire additional resources to increase the organizations' organizational capabilities, including third-party contractors and partners with relevant operational expertise, to the extent that they cannot demonstrate that they have already acquired those capabilities.

4.11.6 Ownership Information

During the Prequalification Phase, CAO will require participants to document their ownership structure and shareholder interests consistent with federal regulations developed for specific funding and auction programs implemented by the FCC that can be found at 47 C.F.R. §1.2112(a)(1)-(7). CAO will specifically request applicants to provide a narrative description of their ownership structure and corporate entity type

(e.g., publicly held corporation, limited partnership, limited liability company, general partnership, cooperative). The showing should reference and correspond to the organizational charts, identification of executive leadership, and financial statements provided in other elements of the Prequalification Phase application.

Participants will be required to submit a list of the required ownership information specific to the type of corporate entity, including the name, address, and citizenship and proportion of ownership interest of those owning and controlling the organization, including any and all partners and shareholders with more than a 10% ownership interest.

For participants that report to the FCC, CAO will review the submitted information to determine that it matches the information submitted to the FCC in compliance with 47 C.F.R. §1.2112 and other FCC reporting requirements including reporting for Eligible Telecommunications Carrier requirements, licensure, and other purposes. Applicants will be expected to identify and explain any discrepancies or inconsistencies in the reported ownership and corporate structure information between the information reported to the FCC and the information submitted as part of the Prequalification Phase.

CAO will also check the submitted information against relevant business licensing requirements for the State of New York and will require applicants to explain any discrepancies or inconsistencies between the two sets of reported data.

This requirement is critical for CAO, and NTIA, to uphold their commitments to fairness and transparency under the BEAD Program. Ownership information for each prospective subgrantee will allow CAO to have a full and complete picture of participants in the program and who is being entrusted with BEAD funding to ensure an efficient and effective use of funds that benefits the largest number of end users.

4.11.7 Information on Other Public Funding

As part of CAO's efforts to substantiate an applicant's overall expertise and competence to successfully complete a BEAD-funded project, during the Prequalification Phase CAO will require participants to submit information about their participation in other State or federal publicly funded grant programs.

CAO will assess this information to better understand the participant's experience and knowledge regarding publicly funded grant programs, the technical capabilities demonstrated by the sophistication of each project, and the resources that the participant has committed over the term of these projects.

Participants will be required to submit information about their participation and commitments for publicly funded programs including but not limited to the Families First Coronavirus Response Act (Public Law 116-127; 134 Stat. 178), the CARES Act (Public Law 116-136; 134 Stat. 281), the Consolidated Appropriations Act, 2021 (Public Law

116-260; 134 Stat. 1182), the American Rescue Plan of 2021 (Public Law 117-2; 135 Stat. 4), any federal Universal Service Fund high-cost program (e.g., RDOF, the Connect America Fund), and CAO's other broadband grant programs, as well as any State or local universal service or broadband deployment funding program.

As part of the Prequalification Phase, CAO will provide a template for applicants to use to provide the requested information for each publicly funded broadband deployment project where the participant is planning to apply for funding, has an application pending, has been awarded public funding, or has committed to completing a project. Participants will also be required to include information about any publicly funded broadband projects for their affiliates and parent company.

For each current publicly funded broadband project, CAO will require Prequalification Phase participants to provide:

- Speed and latency of the service to be provided as measured and reported under the applicable rules of the program
- Geographic area covered
- Number of unserved and underserved locations committed to serve or a percentage of the number of locations in the area as measured and reported under the applicable rules of the program
- Amount of public funding to be used
- Cost of service to the consumer
- Matching commitment, if any, provided by the participant or its affiliates

5

Non-Deployment Subgrantee Selection

(REQUIREMENT 9)

5 Non-Deployment Subgrantee Selection (Requirement 9)

CAO does not anticipate supporting non-deployment eligible activities with BEAD Program funds because, as is described in detail in New York's Five-Year Action Plan[16], the State's estimated cost to provide universal service exceeds its BEAD allocation. CAO does not anticipate having funds remaining for non-deployment activities.

If, however, CAO has additional funds after provisionally issuing the broadband deployment grants, it will plan to fund non-deployment activities with its remaining funding.

Consistent with the BEAD NOFO, CAO will consider supporting additional non-deployment activities related to the implementation of its State Digital Equity Plan and workforce development activities to support BEAD deployment.

As CAO runs its subgrant selection process, it will monitor the remaining funds closely. If CAO determines that it may have funds remaining, it will begin planning and preparing a non-deployment activity plan to submit as part of its Final Proposal.

***Note**: On November 2, shortly before CAO released this draft document for public comment, NTIA provided new guidance regarding the classification of workforce costs as eligible non-deployment uses of BEAD funds. Due to the late release of this guidance, CAO has not incorporated this guidance into the current draft of the Initial Proposal Volume II. CAO will further review NTIA's guidance and may revise this section accordingly. In the interim, CAO welcomes input and feedback from stakeholders regarding how to consider workforce development activities within non-deployment costs.*

[16] Available at http://broadband.ny.gov; *see* Chapter 5.6, "Estimated Cost for Universal Service."

6

CAO Implementation Activities

(REQUIREMENT 10)

6 CAO Implementation Activities (Requirement 10)

This section describes initiatives that CAO, as the Eligible Entity, proposes to implement as the recipient without making a subgrant.

Given that New York's BEAD allocation exceeds its estimated cost for universal service, CAO is not proposing any new initiatives. As noted in Section 4.1.2, CAO plans to maximize its BEAD funding to unserved and underserved locations through fiber broadband deployment wherever possible.

However, if CAO has funds remaining after funding all unserved, underserved, and CAI locations, CAO may consider implementing non-deployment priorities itself. CAO may work with other agencies to support programs that include workforce development related to the deployment of broadband, digital equity and broadband adoption activities, and mapping and data collection.

CAO plans to implement key grant management activities without issuing a subgrant, including:

- Implementation of the BEAD challenge process
- Oversight and management of BEAD subgrant applications and issuance
- Overseeing subgrantee compliance
- Development and management of internal systems and controls to manage all BEAD administrative processes
- Subgrantee technical assistance
- Development of the Final Proposal
- Data gathering and measurement to track project implementation

7

Labor Standards and Protection

(REQUIREMENT 11)

7 Labor Standards and Protection (Requirement 11)

This section explains how CAO will account for and oversee subgrantee adherence to federal and State labor and employment laws that mandate minimum safety, wage, anti-discrimination, and other workplace standards.

7.1 Required Submissions and Scoring

CAO will require applicants to submit the following information to demonstrate their use of strong labor standards and protections.

7.1.1 Federal Labor Standards

CAO will ensure full compliance with federal labor and employment laws with respect to its BEAD-funded projects. Compliance with federal fair labor practices, including federal laws for minimum safety, wage, anti-discrimination, and other workplace standards, will be a critical component of Prequalification Phase evaluation and a primary criterion in Scoring Phase scoring.

Applicants will be required to provide:

1. Certification from an Officer/Director-level employee, or an equivalent, of consistent past compliance with federal labor and employment laws on broadband deployment projects in the last three years, including:
    - Certification that the prospective subgrantee, as well as its contractors and subcontractors, have not been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, Title VII of the Civil Rights Act of 1964, or any other applicable federal labor and employment laws for the preceding three years; or disclosure of any findings of such violations
    - New entrants without a record of labor and employment law compliance will be permitted to mitigate this fact by providing specific, forward-looking commitments to strong labor and employment standards and protections with respect to BEAD-funded projects
2. Details on how the potential subgrantee will ensure that its own practices, as well as those of its contractors and subcontractors, continue to remain fully compliant with federal labor and employment laws, including:
    - Information on applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction of broadband networks
    - Plans for implementation of workplace safety committees authorized to raise health and safety concerns, including whether workers will be

permitted to create worker-led committees that management meets with to ensure compliance
    - Confirmation that the subgrantee will recertify compliance annually for the duration of BEAD implementation

7.1.2 State Labor Standards

New York State has some of the highest labor standards and protections in the country; CAO will ensure its subgrantees are fully compliant with all State labor and employment laws, in addition to federal laws. CAO's objective is to ensure that all New York workers are protected by labor standards that ensure a fair workplace with a proper wage. Compliance with State fair labor practices will be a critical component of Prequalification Phase evaluation and a secondary criterion in Scoring Phase scoring.

Applicants will be required to provide:

1. Certification from an Officer/Director-level employee, or an equivalent, of consistent past compliance with New York State labor and employment laws in the last three years, including relevant policies on paid sick and family leave, workplace health and safety (including the NY HERO Act and Emergency Preparedness Law[17]), workplace discrimination and harassment (including the New York State Human Rights Law[18]), wages and hours, retaliation protections, and employment of minors. Information to be submitted will include:
    - Certification that the prospective subgrantee, as well as its contractors and subcontractors, have not been found to have violated New York State labor and employment laws for the preceding three years; or disclosure of any findings of such violations
    - New entrants without a record of labor and employment law compliance will be permitted to mitigate this fact by providing specific, forward-looking commitments to strong labor and employment standards and protections with respect to BEAD-funded projects
2. Details on how the potential subgrantee will ensure that its own practices, as well as those of its contractors and subcontractors, continue to remain fully compliant with State labor and employment laws, including:
    - Confirmation that the subgrantee will recertify compliance annually for the duration of BEAD implementation
3. Discussion of the subgrantee's track record and commitment to maintaining high standards of workplace safety and training, including:

[17] "Health and Safety Precautions for Worksites." New York State Department of Labor, https://dol.ny.gov/ny-hero-act.

[18] "New Workplace Discrimination and Harassment Protections." New York State Division of Human Rights, https://dhr.ny.gov/new-workplace-discrimination-and-harassment-protections.

    - Certification of compliance with relevant safety standards, including the National Electrical Safety Code
4. Details on the potential subgrantee's other labor practices, including:
    - Confirmation that all staff employed on BEAD-funded projects will be paid prevailing wages and benefits, in accordance with the New York State Labor Law
    - The anticipated size of the workforce required to carry out the proposed work, including details on whether full- or part-time staff will be used
    - Discussion of current and planned future approach to project labor agreements

CAO will work closely with its colleagues at the New York State Department of Labor (DOL) to support subgrantees in navigating State requirements, and to ensure compliance. Should a subgrantee not abide by State labor standards and protections, CAO will consider termination of the contract, and pursue violating employers as appropriate.

7.1.3 Labor Standards Scoring

With respect to all materials and information provided, CAO will review and evaluate the applicant based on the following:

1. **Completeness.** Are the materials complete and fully responsive to the request?
2. **Sufficiency.** Do the materials demonstrate the appropriate level of compliance and adherence to the standards and statutes?
3. **Concerns.** Are there any omissions or other indications that should raise concerns about the potential subgrantees', or its contractors' and subcontractors', track record and commitment to the standards or statutes?

Materials on labor standards and protections with no major concerns after initial review will be considered as part of the Scoring Phase for award of points per the scoring rubric included in Section 4.2.3 (for applicants who successfully achieve prequalification and progress to submit applications in the Scoring Phase). Submissions in response to federal labor standard requirements (Section 7.1.1) will be scored as part of the primary criteria, receiving up to 30 points; submissions in response to State labor standard requirements (Section 7.1.2) will be scored as part of the secondary criteria, along with required workforce development submissions (Section 8.2), receiving up to 5 points.

For submissions that raise concerns or questions based on omissions or other indications, CAO will request clarifications to the applicant in writing, then score.

7.2 Mandatory Subgrantee Commitments

CAO will require subgrantees to pay prevailing wages and benefits (Pursuant to Chapter 31, Article 8, Section 224-E of New York State's Labor Law, as amended by the New York State WIRED Broadband Act (2022)). Under New York State Labor Law,

contractors and subcontractors must pay the prevailing wage to all workers under a public work contract; DOL ensures compliance, except on projects led by the City of New York, for which the Office of the New York City Comptroller ensures compliance. DOL sets prevailing wage rates annually on a county-by-county basis. Applicants will be expected to provide information in the Prequalification Phase on current and planned wages and benefits, including a certification that all staff employed on BEAD-funded projects will be paid prevailing wages and benefits.

CAO will additionally require the use of an appropriately skilled and credentialed workforce, and applicants will be required to commit to this during the Prequalification Phase. Applicants will be required to provide information on current and planned future practices regarding training, certification, and licensure, as well as the applicant's internal policies and controls to ensure that staff have and maintain appropriate credentials to complete the planned work.

Subgrantees' Prequalification and Scoring Phase submittals will become binding commitments upon subgrant award, and applicants will be required to submit annual labor compliance certifications, subject to regular reviews to ensure ongoing compliance. CAO, in consultation with its DOL colleagues, will investigate failure to meet such standards, including potential end of the contract. To encourage public confidence in the program, applicants' disclosures responding to labor standards criteria will be publicly available on CAO's website.

8

Workforce Readiness

(REQUIREMENT 12)

8 Workforce Readiness (Requirement 12)

This section explains how CAO will ensure an available, diverse, and highly skilled workforce to implement BEAD projects.

8.1 Advancing Equitable Workforce Development and Job Quality Objectives

Historic federal and State investments in broadband infrastructure will create thousands of jobs across various industries and occupations, driven by the physical buildout of fiber, towers, and other infrastructure; ongoing operations and maintenance of expanded broadband networks; and the facilitation of broadband access and digital inclusion. A preliminary labor market analysis commissioned by CAO estimates that planned investment will create at least 4,000 one-time job-years related to broadband deployment (equivalent to 1,650 full-time construction positions in the peak year of construction) and at least 730 permanent ongoing jobs related to internet service provision. CAO expects spending and job creation to ramp up over multiple years, with investments and construction jobs peaking in 2026 and permanent jobs stabilizing by 2028.

Numerous studies, including those by NTIA, have projected unprecedented national and New York State demand for key jobs related to BEAD deployment, though precise estimates vary. The demand for key roles will likely be amplified by the level of federal spending across multiple categories of infrastructure, combined with impending retirements across critical occupations. CAO expects that one-time and ongoing jobs such as construction laborers, first-line supervisors of construction trades, electricians, and telecommunications installers and repairers will be some of the roles in highest demand. While competition is likely in many of these roles, broadband workforce needs will vary across the state, given the regional nature of much of the investment.

Equitable access to broadband-related jobs is also a challenge in New York State. While many of the jobs related to the broadband industry are high-quality, due to myriad social and historical challenges and barriers, the current labor force for many roles is not representative, in terms of race and gender, of New York State's overall labor force. Construction and fiber installation occupations, for example, have either low representation of Black and Latinx workers or declining representation as roles advance in seniority and pay. Women are not well represented across broadband-related occupations and are generally in lower-paying roles. Finally, critical positions related to digital adoption, such as librarians and digital navigators, have high-barrier educational requirements that are misaligned with the skills required for success and can shut out otherwise qualified candidates.

These challenges indicate a need to diversify the pipeline of talent into broadband roles, provide pathways to advancement, promote more inclusive workplaces for broadband

jobs, and reconsider hiring practices and requirements. CAO recognizes that these challenges represent an opportunity to create more equitable job pathways and address historical disparities in hiring.

How CAO will ensure that subgrantees support the development and use of a highly skilled workforce

New York State's workforce strategy will emphasize the needs of industry, while also seeking to address the persistent disparities in who has access to family-sustaining jobs across the state, centering equity and economic mobility. CAO will be supported in its workforce efforts through the recently created Office of Strategic Workforce Development (OSWD), also housed within ESD.

CAO will ensure that Prequalification and Scoring Phase applicants provide information related to their current and future labor practices and workforce development strategies (see Sections 7.1 and 8.2). This will include:

- Details on past Federal and State labor standard compliance and policies in place to ensure future compliance, including but not limited to safety training and protocols
- Details on certifications and licenses relevant to BEAD-funded work held by personnel, certifications for past compliance, and processes and resources in place to ensure that all staff remain up to date on necessary credentials
- Workforce development plans that demonstrate applicants' commitment to policies and investments to recruit, train, hire, and upskill a diverse workforce, including expected use of vocational training, registered apprenticeships, pre-apprenticeships, "earn and learn" opportunities, or other training approaches
- Information on any wraparound services offered by applicants to address persistent barriers to accessing quality broadband jobs by members of historically marginalized groups (e.g., childcare, transportation, or subsidies during training)

CAO will prioritize these elements during the evaluation process, ensuring subgrantees have a strong history of compliance with and future plans to support strong labor safety protections and policies as well as workforce development approaches.

How CAO will develop and promote sector-based partnerships

ESD's Office of Strategic Workforce Development (OSWD) was created in 2022 to strengthen partnerships among industry and workforce training providers, including unions, nonprofit training organizations, community colleges, community-based organizations, and others. In partnership with OSWD, CAO will take several steps to promote sector-based partnerships:

- Continue to engage with employers, unions, and training providers to understand the landscape of existing workforce development programs and

partnerships, industry credentials, and gaps in the training ecosystem that must be addressed to ensure equitable workforce outcomes through BEAD. To date, CAO has engaged ISPs, educational institutions, training organizations, community-based organizations, and labor unions (see Appendix 2 for details on surveys, virtual forums, and workforce stakeholder interviews conducted).

- Maintain and make available a database of workforce partners by region that are available to partner with subgrantees to recruit, train, and credential workers (e.g., unions, community colleges, Boards of Cooperative Educational Services (BOCES), nonprofit training programs, etc.) Already, CAO has cataloged over 100 workforce development programs, identifying the size, skill and sector focus, and credentials (if any) of each program. CAO will continue to build out this database in partnership with OSWD, the State University of New York, the BOCES network, and New York State's 10 Regional Economic Development Councils. CAO is also exploring how to effectively play a matchmaker role between employers and workforce partners, especially small employers, who have reported hiring challenges.
- Distribute guidance documents outlining best practices in industry-trainer partnerships, credentialing, and the use of wraparound supports and community partnerships to promote equitable training and hiring. Wraparound supports prioritized in recent New York State programs include stipends or services to address childcare and transportation needs and the cost of programs, use of online or hybrid programming, career coaching, and mental health and substance abuse counseling.
- Host webinar(s) and/or office hours for BEAD applicants to review labor safety and workforce training requirements and to share information about existing available resources in New York State to support the design and execution of workforce training, including the database of workforce partners and information on existing funding programs and OSWD's Payment for Performance Grant Program.[19]

Furthermore, multiple programs in New York State are recent beneficiaries of the U.S. Department of Labor's recent Investment in America workforce training, and they can be key collaborators in expanding and identifying successful models and understanding success metrics for workforce training.[20]

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[19] "Pay for Performance Grant Program: Operating Grants." Empire State Development, https://esd.ny.gov/pay-performance-grant-program-operating-grants.

[20] New York grantees include the New York City Department of Youth and Community Development, Rochester Institute of Technology, and Workforce Development Board, Herkimer, Madison, and Oneida Counties.

How CAO will plan to create equitable on-ramps into broadband-related jobs, maintain job quality for new and incumbent workers, and continually engage with labor and community-based organizations

As noted above, CAO's labor market analysis has identified a critical need to create more equitable on-ramps to broadband-related jobs for women, Black and Latinx New Yorkers, and other historically marginalized groups, who are underrepresented overall and especially in the industry's highest paying jobs. This need is not limited to broadband-related jobs and is a core focus of OSWD and New York State's broader workforce strategy.

In the State's recent experience, best practices to create equitable on-ramps include: 1) providing wraparound services (examples described above) in tandem with training to reduce barriers to participation in training programs and job transitions among underrepresented groups, and 2) engaging in partnerships to promote awareness of, and trust in, training programs among historically excluded groups. These partnerships typically take one of two forms: a) between employers and skills training providers with an established presence in historically marginalized communities (e.g., BOCES or community colleges), or b) between skills training providers (e.g., unions) and community-based organizations or networks that can supplement outreach and cultural competency to increase credibility and reach in the same communities.

CAO will deploy the strategies outlined above (e.g., workforce partner database, matchmaking between applicants and workforce partners, guidance documents, office hours, and access to existing grant programs) to promote these best practices in training programs and create more equitable on-ramps for jobs created by subgrantees.

In addition, CAO will, through its ongoing local coordination activities (e.g., stakeholder virtual forums, webinars, office hours, and direct meetings and interviews), continually engage with labor organizations and community-based organizations to ensure that worker voice is maintained and prioritized throughout the BEAD planning and implementation process. CAO will solicit input and feedback from stakeholders on emerging strategies and initiatives to ensure that all perspectives are considered to craft workforce development interventions for maximum impact.

How CAO will ensure that job opportunities are available to a diverse pool of workers

Successful models will allow a diverse range of New Yorkers to have access to and benefit from good jobs. The strategies CAO deploys to create equitable on-ramps to broadband-related jobs will be designed to ensure that job opportunities are available to a diverse pool of applicants. Particularly, encouraging and facilitating partnerships among employers, unions, and community-based organizations and training providers with a strong presence and level of trust in underrepresented communities will be critical to attracting more diverse applicants to broadband-related training programs and jobs. Promoting wraparound services alongside training programs will be critical to enabling

applicants from diverse backgrounds to participate and succeed in training programs and employment.

Multiple recent rounds of recent OSWD grant awards provide excellent examples of recent partnerships among employers, training providers, and community organizations that were facilitated by New York State and can serve as a model for partnerships CAO will seek to facilitate through BEAD funding.[21] A highlight of the recent awards is the Next Gen Digital Workforce Program led by Youth Action Programs and Homes Inc. in New York City, which is an industry-driven training that prepares low-income youth for high-demand careers in network management and fiber installation. The program includes 165 hours of training, hands-on experience, and industry-recognized credentials in partnership with industry. The free program is open to low-income individuals ages 18-30 and provides attendance and completion stipends.

These actions, along with the labor standard requirements for subgrantee applications described in Section 7.1, will help CAO advance equitable workforce development and job quality to develop a highly skilled, diverse workforce that can meet this moment of historic investment.

8.2 Required Submissions

CAO will include workforce development requirements in its solicitations to elevate and expand the creation of an equitable workforce as a critical component of meeting the goals of New York State. The aim of CAO's solicitations will be to ensure that a subgrantee's current and proposed practices align with New York State's goals of creating high-quality, safe jobs and ensuring in-depth workforce development programs in partnership with unions, other workforce training providers, and community-based organizations.

Applicants will be required to share a workforce development plan demonstrating their commitment to recruit, hire, train, and retain a diverse and skilled workforce into good jobs, particularly local workers and/or workers from historically underrepresented communities. CAO's solicitations will include information on existing New York State

[21] "Governor Hochul Announces Third Round of Office of Strategic Workforce Development Grant Awards Totaling Nearly $11 Million." Office of the Governor, June 28, 2023, https://www.governor.ny.gov/news/governor-hochul-announces-third-round-office-strategic-workforce-development-grant-awards.

"Governor Hochul Announces Fourth Round of Office of Strategic Workforce Development Grant Awards Totaling More than $12 Million." Office of the Governor, November 2, 2023, https://www.governor.ny.gov/news/governor-hochul-announces-fourth-round-office-strategic-workforce-development-grant-awards.

programs available to support employers with costs of training, wraparound services, and recruitment, including ESD's Pay for Performance Grant Program.[22]

Applicants will be required to provide the following information:

1. A plan to ensure that the project workforce will be appropriately skilled and credentialed, including:
    - Discussion of current and planned future practices regarding training, certification, and licensure
    - Internal policies and controls to ensure that staff have and maintain appropriate credentials to complete the planned work
2. Details on the potential subgrantee's labor practices, including:
    - Details on union status of the workforce
    - Discussion of current and planned future practices regarding using a directly employed or subcontracted workforce
    - Details on current and planned future practices regarding subcontracting, and details on any specific planned contractors or subcontractors who the subgrantee would engage to carry out proposed BEAD work
3. If the subgrantee's workforce (or that of its contractors or subcontractors) is not unionized, the subgrantee must also provide:
    - Job titles and size of the workforce required to carry out the proposed work and the entity that will employ each portion of the workforce
    - For each job title, a description of safety training, certification, and/or licensure requirements, including whether there is an in-house training program with established requirements tied to certifications or titles; and information on the professional certifications and/or in-house training in place
4. Details on the applicant's workforce development practices, including:
    - Discussion of current and planned future partnerships including, but not limited to: labor unions, workforce training and development organizations, State and local workforce boards, educational institutions, community-based organizations, or others
    - Details on current and planned future recruitment and hiring practices, especially those that maximize use of local or regional workforce
    - Description of current and planned future efforts to diversity talent pipelines from underrepresented and/or underserved communities, including any statewide, regional, or local partnerships in place to support recruitment and hiring

[22] "Pay for Performance Grant Program: Operating Grants," supra.

- Discussion of job quality considerations as part of the applicant's workforce development strategies
- Description of employee engagement efforts, including any reference to diversity, equity, inclusion, and access efforts and organizational culture
- Documentation of communications with workers and worker representative organizations regarding labor laws, fair labor standards, the formation of worker-led health and safety committees, and workforce development (e.g., sample emails, copies of posters, worker surveys, etc.)
- Description of current and planned future workforce training (e.g., in-house training, vocational training, apprenticeships, pre-apprenticeships, or other "earn and learn" opportunities)
- Details on current or future planned efforts to support talent with wraparound services and/or stipends including transportation benefits, childcare subsidies, or other similar measures
- Current and planned future practices regarding public disclosure of workforce plans and labor commitments on a website or online portal
- Letter(s) of commitment, if available, from partner organization(s) that demonstrate(s) applicant's current engagement, or future intent to engage, with partner(s) on workforce development (e.g., through advising on curriculum or program design, providing program funding, interviewing talent, hiring talent, building an apprenticeship or other program, or upskilling existing workers). Letters can be from labor unions, workforce development organizations, State and local workforce boards, educational institutions, community-based organizations, or other relevant organizations

Workforce development plans and partnerships will be a factor in the evaluation of applicants and subgrantees will be held accountable to the high standards articulated in their proposals.

9

Minority Business Enterprises (MBEs) / Women’s Business Enterprises (WBEs) / Labor Surplus Area Firms Inclusion

(REQUIREMENT 13)

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

This section documents how CAO will promote and require recruiting, utilizing, and retaining minority business enterprises (MBEs), women's business enterprises (WBEs), and labor surplus area firms when possible, pursuant to 2 C.F.R. 200.321.[23]

New York State has made increasing the utilization of minority and women-owned businesses (MWBEs) a statewide goal. During the 2022 fiscal year, Governor Hochul announced that New York State surpassed its official MWBE contracting utilization goal, 30.64%, making it the highest in the nation.[24] Nearly $3B in State contracts were awarded to MWBE firms during this period, and more than $24B in State contracts have been awarded since 2011.

While New York State has made strides, there is more work to be done to support wealth-building opportunities for MWBEs. CAO will use the BEAD Program as an opportunity to further the State's objectives to support MWBE firms. First, CAO will continue to require MWBE participation plans in its solicitations and will incorporate such materials into any contracts entered into through the BEAD program. Second, CAO will work with partner offices at ESD including the Division of Minority and Women's Business Development (DMWBD), Office of Contractor and Supplier Diversity (OCSD), and Division of Small Business (DSB) to promote broadband-related opportunities to existing MWBEs, facilitate State certification for new entrants, and market resources and technical assistance support to MWBEs throughout the state. CAO will host informational sessions, make information available online, and market resources to MWBEs to increase participation in BEAD-funded projects. CAO will additionally act as a matchmaker by maintaining a list for use by ISPs of MWBE subcontractors specifically interested in, and qualified for, broadband opportunities.

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[23] Under Article 15-A of the New York State Executive Law, an MBE is a business enterprise which is at least 51 percent owned, operated, and controlled by citizens or permanent resident aliens who are persons having origins from 1) any black African racial groups; 2) Mexican, Puerto Rican, Dominican, Cuban, Central or South American descent of either Native American or Latin American, regardless of race; 3) the Far East, Southeast Asia or the Pacific Islands; 4) the Indian subcontinent; or 5) any of the original peoples of North America. A WBE means a business enterprise in which at least 51 percent is owned, operated, and controlled by citizens or permanent resident aliens who are women. *See* https://esd.ny.gov/mwbe-certification-assessment-tool.

[24] "Governor Hochul Signs Legislative Package to Strengthen New York's Nation-Leading Minority- and Women-Owned Business Enterprise Program." Office of the Governor, October 6, 2022, https://www.governor.ny.gov/news/governor-hochul-signs-legislative-package-strengthen-new-yorks-nation-leading-minority-and.

Finally, in accordance with the New York State WIRED Broadband Act, CAO will track MWBE utilization across all of its projects and report on such utilization, as well as the diversity practices of CAO's contractors, annually to the governor and State Legislature.

CAO's work to support MWBEs will build on existing efforts at DMWBD, OCSD, and DSB; through these entities ESD supports MWBEs through technical assistance, investments, small short-term loans, and business mentorship. DMWBD currently supports more than 9,700 certified MWBE firms (see table below for list by ethnicity and region).[25] MWBEs are able to take advantage of a variety of technical assistance programs through ESD, including the MWBE Business Growth Accelerator Program, the MWBE Bridge to Success Loan Program, and the New York State Small Business Credit Initiative, as well as a regional exposition series. CAO will work with its partners within ESD to ensure that the State continues to support and grow the base of qualified MWBEs available for broadband-related contracts.

Table 3: New York State Certified MWBEs by Ethnicity[26]

Ethnicity	Number of Certified Firms
Asian	1,575
Black	2,470
Hispanic	1,395
Native American	87
Non-Minority Women	4,238
Total	9,765

Table 4: MWBEs by New York State Region

Region	MBE	WBE	Total
Capital Region	199	448	647
Central New York	134	238	372
Finger Lakes	166	292	458
Long Island	675	533	1,208
Mid-Hudson	429	442	871
Mohawk Valley	20	106	126

[25] See https://ny.newnycontracts.com for current directory. See also https://esd.ny.gov/doing-business-ny/mwbe.
[26] "Division of Minority and Women's Business Development Annual Report Fiscal Year 2021-22." Empire State Development, https://esd.ny.gov/sites/default/files/DMWBD-FY2021-22-Report.pdf.

Region	MBE	WBE	Total
North Country	24	120	144
New York City	2,664	997	3,661
Southern Tier	43	125	168
Western New York	245	425	670
Out of State	870	570	1,440
Total	5,469	4,296	9,765

The BEAD Program additionally encourages utilization of Labor Surplus Area (LSA) firms to support economic growth, job creation, and equity in the telecommunications workforce.[27] The U.S. Secretary of Labor is required to annually designate LSAs and disseminate this information for the use of all federal agencies in directing procurement activities and in locating new plants or facilities. An area must have an unemployment rate at least 20% above the national rate (including Puerto Rico) during the previous two calendar years in order to qualify as an LSA. The Department of Labor's 2024 list update identifies the following cities within New York as LSAs: Buffalo, New York City, Niagara Falls, and Rochester. It lists the following counties as LSAs: Bronx, Kings, New York, Queens, and Richmond.[28] To the extent that locations eligible for BEAD funding overlap with these LSAs, CAO will encourage project applicants to partner with local firms and will conduct targeted outreach to identify and promote potential subcontractors in these areas. CAO will require information on applicants' and their prospective subcontractors' business locations, as well as self-identification as LSA firms in the Prequalification Phase, to enable tracking of LSA firm utilization in BEAD-funded projects.

New York is committed to ensuring that MWBEs and LSA firms are recruited and retained whenever possible during the grant period. CAO will work with subgrantees throughout project implementation to maximize their use of MWBEs and LSA firms. CAO will include information on qualified MWBEs and LSAs in its solicitation materials to ensure all prospective and future subgrantees are aware of these subcontracting opportunities.

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[27] "Workforce Planning Guide." NTIA, https://broadbandusa.ntia.doc.gov/sites/default/files/2022-10/DOC_NTIA_Workforce%20Planning%20Guide_FINAL_100722.pdf *at* p. 15.

[28] "Labor Surplus Area." U.S. Department of Labor, https://www.dol.gov/agencies/eta/lsa; for the spreadsheet showing specific LSAs, see https://www.dol.gov/sites/dolgov/files/ETA/lsa/pdfs/2024-FINAL-LSA.xlsx.

9.1 Supporting Minority Business Enterprises (MBEs), Women-Owned Business Enterprises (WBEs), and Labor Surplus Area Firms

CAO will conduct the following activities to ensure that MWBEs and LSA firms are recruited, used, and retained:

- **Place qualified small and minority businesses and women's business enterprises on solicitation lists:** CAO will work with DMWDB as it delivers regional MWBE business development events and outreach, including training sessions, webinars, mentorship opportunities, and programs aimed at connecting MWBEs with New York State agencies, authorities, and local contracting opportunities. This effort will include placing qualified MWBEs on solicitation lists, as appropriate, for BEAD-funded solicitations.
- **Assure that small and minority businesses, and women's business enterprises, are solicited whenever they are potential sources:** CAO will work closely with DMWBD to ensure information about grant and contracting opportunities is made available to MWBEs. CAO will continue to require MWBE participation plans in all solicitations. In addition, CAO will work closely with DMWBD to ensure MWBEs are engaged through the variety of networking and technical assistance programs that exist throughout the state.
- **Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises:** CAO will leverage the strength of New York State procurement policies to break tasks and requests into smaller, more manageable subcontracts to maximize participation by small businesses and State-certified MWBEs.
- **Establish delivery schedules, where the requirements permit, which encourage participation by small and minority businesses and women's business enterprises:** Where requirements permit, CAO will establish delivery schedules to encourage participation by MWBEs and small businesses. CAO will also seek to be flexible with its requirements to enable greater MWBE participation.
- **Use 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:** CAO will work with and make available information about the services and assistance, as appropriate, of organizations such as the Small Business Administration and the Minority Business Development Agency, as well as DMWBD, OCSD, and DSB.

- **Require subgrantees to take the affirmative steps listed above as it relates to subcontractors:** CAO will work with subgrantees to ensure that they take all of the affirmative steps listed above as they relate to their subcontractors. CAO will additionally support subgrantees with activities including, but not limited to:
    - Providing subgrantees with training and opportunities to connect with qualified potential MWBE and LSA firm subcontractors
    - Sharing knowledge and best practices on suppliers and equitable procurement practices
    - Providing support and technical assistance for compliance with reporting requirements

10

Cost and Barrier Reduction

(REQUIREMENT 14)

10 Cost and Barrier Reduction (Requirement 14)

This section documents the steps CAO will take to reduce costs and barriers to deployment through promoting the use of existing infrastructure, streamlining permitting processes, and supporting cost-effective access to poles, conduits, easements, and rights-of-way, among other measures. This section also includes steps to reduce costs associated with construction, labor, and overhead, which CAO has identified as additional barriers in the state.

CAO's continuing work to identify and mitigate barriers to broadband deployment is supported by the Broadband Deployment Advisory Committee (BDAC) established pursuant to the New York State WIRED Broadband Act (2022), whose statutory duties include advising CAO, the Governor, and the State Legislature on "policy changes necessary to promote expansion and development" of broadband access, "existing policies of State agencies which may be counter-productive or inimical" to broadband deployment, and "policies to reduce regulatory obstacles and streamline regulations" to promote broadband deployment.[29] The 15 committee members include representatives from State agencies, ISPs, organized labor, and Tribal communities. The inaugural virtual meeting of the committee was held on October 18, 2023. The BDAC will meet a minimum of twice per year and will advise CAO on the design and implementation of the BEAD Program moving forward, as well as on policy actions the State may take to further streamline and promote broadband expansion and deployment.

CAO has identified the following preliminary strategies for mitigating cost and barrier risks, informed by an extensive review of sources of increased deployment costs and barriers for deployment, dozens of interviews with industry stakeholders, a virtual forum for ISPs, and an ISP survey (see Appendix 1 for survey; see Appendix 2 for details on interviews and virtual forum engagements). CAO, through engagement with the BDAC and ongoing local coordination with stakeholders, will continue to work to identify ways it can support broadband deployment.

10.1 Promote the Use of Existing Infrastructure

CAO will leverage existing infrastructure in the state, including publicly-owned infrastructure where feasible, to facilitate last-mile projects. CAO will also encourage

[29] *See* the WIRED Broadband Act at https://assembly.state.ny.us/leg/?default_fld=&leg_video=&bn=S08008&term=2021&Summary=Y&Text=Y. *See also* "

Empire State Development Announces Members Of The Broadband Deployment Advisory Committee." Empire State Development, November 1, 2023, https://esd.ny.gov/esd-media-center/press-releases/esd-announces-members-broadband-deployment-advisory-committee.

collaboration with utility pole owners across the state to facilitate a broadband project's speed to deployment.

10.1.1 Streamline Access to State Rights-of-Way and Poles

In discussions with CAO, industry stakeholders have noted that the costs, timelines, and general uncertainty associated with utility pole make-ready and attachment processes are a significant barrier to broadband deployment in New York—and potentially their participation in CAO programs. ISPs report rising make-ready and attachment costs over the past few years, approaching 40% of total project costs in some cases.

The New York State Department of Transportation (NYSDOT) has undertaken several activities to streamline access to State rights-of-way and expedite pole installations. In 2022, NYSDOT established the Utility and Energy Management Bureau to focus on managing the permit process to secure access to State rights-of-way. NYSDOT initiated a pilot program in 2023 eliminating the requirement for a Licensed Land Surveyor stamp on applications for aerial pole installations. NYSDOT has also instituted a special permit process (PERM 75) to facilitate fiber broadband deployments, with a streamlined online application portal.[30] Finally, as proposed by Governor Hochul, the State's 2022-2023 Budget repealed NYSDOT's authority to assess fiber-optic fees on State-owned rights of way for CAO deployment projects[31]--an example of the State's efforts to mitigate potential obstacles to broadband deployment.

In 2022, the New York Public Service Commission (PSC), which regulates and oversees electric, gas, water, and telecommunication industries in the state, initiated Case M-0101 to examine methods to streamline the pole attachment process and procedures to facilitate broadband deployment.[32] PSC conducted two comment periods on the case and continues to develop recommendations as of the publication of its 2023 Report on the Availability, Reliability, and Cost of High-Speed Broadband Services in New York State.[33] The case is the latest step in the PSC's proactive efforts to refine processes for utility pole attachments, beginning with the issuance of a standard rate methodology for pole attachments in Case 95-C-0341 (1997) and the adoption of a Policy Statement on Pole Attachments in Case 03-M-0432 (2004). In 2019, the PSC

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[30] "Fiber Optic." New York State Department of Transportation, https://www.dot.ny.gov/divisions/engineering/real-estate/Fiber%20Optic.

[31] L. 2022, Ch. 58, Part JJ.

[32] "Case 22-M-0101, Proceeding to Review Certain Pole Attachment Rules, Notice Seeking Comments." New York State Public Service Commission, March 1, 2022, https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B3960BCF7-D4E6-419B-9FFC-822BD3148F4C%7D.

[33] "2023 Report on the Availability, Reliability and Cost of High-Speed Broadband Services in New York State." NYS Public Service Commission, June 2023, https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={0083E488-0000-CA13-B21F-DDBF1839B881}.

incorporated wireless attachments into this framework by issuing an order in Case 16-M-0330.

CAO will continue to work with the PSC, other State agency partners, and pole owners to streamline the make-ready and pole-replacement processes for new attachments for aerial fiber deployment and facilitate underground installation where appropriate.

10.1.2 Encourage Local Communities to Leverage Their Poles and Conduits

CAO will encourage municipalities that own poles or conduits to make them available for broadband deployment. For example, these localities can indicate availability of such streamlined access and CAO will publish this information for eligible areas so that potential subgrantees can take it into consideration for their grant applications.

10.1.3 Allow Access to Limited-Access Rights-of-Way

CAO will also explore ways it can facilitate subgrantees gaining access to limited-access rights-of-way through streamlined public interest and resource sharing arrangements, including opportunities to reduce permit timelines and costs.

10.2 Streamline Permitting Processes

10.2.1 Technical Assistance for County and Local Permitting

CAO will provide technical assistance to counties and municipal governments to help streamline permitting processes for the many anticipated subgrantees that will deploy network infrastructure on or in publicly-owned assets. CAO will share information on best practices, make recommendations, and provide feedback on county and local plans. Information shared may include recommendations on how localities can best optimize their permitting for broadband deployment, develop and share relevant information regarding their permitting policies, create conditions that make private investment more attractive, develop strategies to increase staffing and administrative support, and publish information on known assets of interest.

10.2.2 Facilitate Collaboration with Key Environmental and Historic Preservation Agencies

CAO will also seek to incorporate best practices for consultation with environmental and historic preservation agencies into its educational outreach to counties and localities. These agencies will receive permit requests and material within a condensed period of time. CAO will explore the creation of standardized templates to simplify the materials required for environmental assessments and allow the same materials to be provided to different agencies where feasible. While CAO will include federal agencies in its discussions, it strongly encourages NTIA, as the primary federal agency in charge of BEAD funds, to enter into programmatic agreements with such agencies.

10.2.3 Streamline State Permitting Processes

In order to increase the feasibility of awarded projects intended to cross State-protected lands, CAO will discuss streamlining permitting processes with relevant land-controlling State agencies. These efforts may include developing fast-track permitting policies for construction methods that are known to have low impacts on the surrounding rights-of-way. Additionally, the State will consider identifying and publishing easement corridors and construction methods likely to receive rapid reviews for applicable protected lands so that construction associated with potential projects crossing land without available roads or rights-of-way may be minimally invasive and maximally cost-effective.

10.2.4 Shrink Federal Permitting Timelines

To benefit potential subgrantees that intend to cross federal lands, CAO will attempt to shrink permitting timelines by partnering with NTIA to discuss process reforms that might be implemented with key federal land-controlling agencies and exceptions that might be granted to BEAD projects. As the lead federal agency, NTIA may be able to develop programmatic agreements with agencies to facilitate such permitting. One approach could include a “shot clock” permitting process on certain federal land use permits that would incentivize federal agencies to process BEAD permitting applications within a predetermined, finite, and reasonable amount of time.

10.3 Reduce Construction Costs

10.3.1 Encourage Specialized Equipment Sharing

Smaller ISPs in particular may struggle with the high cost and access to specialized equipment needed to drill into hard rock when installing underground fiber. CAO will encourage providers to enter into resource sharing agreements to reduce costs and risks.

10.3.2 Reduce Drop Costs

Drop costs, especially in rural areas where houses are often set back far from public roads, can be very high. Since bidders are required to absorb such costs to connect subscribers under BEAD terms, they will factor these costs into their project applications. Prospects for lowering such costs could lead to lower BEAD outlay requests and therefore more unserved and underserved locations that can be connected with the available BEAD funds. CAO will study opportunities to reduce drop costs based on the final map of eligible locations that have long setbacks, defined as extensions between 400 feet and 1,000 feet.

10.3.3 Map Pole Site Locations

CAO will consult with pole owners to determine if they are amenable to making pole locations publicly available for design and cost estimation purposes. If pole owners

agree in certain areas, CAO will offer to disseminate this information to registrants in the Prequalification Phase.

10.4 Reduce Labor Costs

10.4.1 Strike a Balance Between Skilled and Certified Labor Requirements and the Cost of Labor

Extending broadband service to the maximum number of unserved and underserved New York State residents and business requires lowering barriers to entry and the cost of construction, which includes labor costs. At the same time, CAO is committed to fair labor standards and wages that reflect the skills and certifications of workers.

Accordingly, CAO will require certifications appropriate to specific risks and roles, rather than overly broad professional requirements that would require specialized labor for low-skill tasks. CAO will apply standards consistent with previous broadband initiatives and best practices provided by industry organizations.

10.4.2 Increase Supply of Labor Through Workforce Development Initiatives

CAO's proposed strategy for ensuring that subgrantees have access to an appropriately skilled, credentialed, and qualified workforce is detailed in Section 8.

10.5 Reduce Overhead Costs

10.5.1 Adopt Reasonable, Compliance-Focused Regulatory and Reporting Requirements

CAO will attempt to reduce the overhead costs of construction and network operation by striking an appropriate balance in its regulatory and reporting policies. CAO will keep the interval of required reporting reasonable, publish clear and concise reporting workflows so subgrantees can focus resources and efforts on construction, and leverage existing reporting templates for State grants, RDOF, or ReConnect where appropriate, while ensuring full compliance with NTIA and BEAD Program requirements.

10.5.2 Support Subgrantee Environmental Compliance

CAO will provide support and technical assistance for subgrantees navigating the environmental and historic preservation review process. CAO will facilitate knowledge-sharing across geographies to help subgrantees incorporate lessons learned from projects that have already cleared review.

10.6 Reduce Materials Costs

10.6.1 Identify Approved Vendors Compliant With Build America, Buy America and Negotiate Discount Rates

CAO will act as a coordinating body to reduce the cost of materials for BEAD subgrantees by identifying approved vendors that are compliant with Build America, Buy America (BABA) policies and, where applicable, seeking to negotiate discounted rates for BEAD projects.

10.6.2 Encourage Subgrantees to Form Joint Purchase Coalitions and Joint Purchase Agreements

Additionally, CAO will encourage the creation of joint purchasing coalitions and joint purchasing agreements among subgrantees to provide them with additional leverage through which they may negotiate lower materials costs.

10.7 Reduce the Initial Capital Cost Burden On Smaller ISPs

10.7.1 Connect Local and Community Banks to Local Subgrantees

CAO will reach out to the Federal Reserve Bank of New York to obtain lists of New York credit unions and community banks with unserved and underserved locations in their service areas and make a list of such banks available to ISPs. In addition, it will encourage the Federal Reserve to discuss partnership models and options for banks to work with community development organizations and private partners to underwrite loan guarantees for local banks to provide letters of credit.

10.8 Provide Technical Assistance and Facilitate Knowledge-Sharing

CAO will continue to engage regularly with ISPs and other deployment partners, via direct meetings, virtual forums, webinars, office hour sessions, and other venues to provide program status updates, share updated guidance, field questions about program requirements, and troubleshoot project challenges.

11

Climate Assessment

(REQUIREMENT 15)

11 Climate Assessment (Requirement 15)

This section accounts for and provides an assessment of current and future weather and climate-related risks to new broadband infrastructure in New York State.

11.1 Climate Threat Assessment and Proposed Mitigation Methods

The impacts of climate change are being felt across New York State, from the ocean beaches of Long Island to the Great Lakes. The State began taking steps several years ago to enhance community resilience to sea level rise, storm surges, flooding, and other risks and hazards associated with a changing climate. State regulations ensure new infrastructure built across New York is constructed according to standards that mitigate likely hazards, as projected in the latest State and federal climate models.

The New York State Legislature passed the Community Risk and Resiliency Act (CRRA) in 2014 which directed the Department of Environmental Conservation (DEC) to include consideration of the effects of sea level rise, storm surges, and flooding events in certain funding, facility siting, and permitting decisions. In 2019, the CRRA was further amended by the Climate Leadership and Community Protection Act (CLCPA), broadening the scope to require consideration of all climate hazards, and requiring DEC to take action to promote climate adaptation and resilience.

In practice, many of the permitting requirements and construction standards that will govern the construction of BEAD-funded networks will be subject to local ordinances. The State has taken steps to ensure local policymakers are taking climate projection data into account as they set their standards and requirements. To this end, DEC has prepared numerous resources to support local policymakers to help increase the resilience and adaptability of their jurisdictions, including “Using Natural Measures to Reduce the Risk of Flooding,” “State Flood Risk Management Guidance,” “Guidance for Smart Growth Public Infrastructure Assessment,” and model laws, which local governments may adopt voluntarily to be more resilient to sea-level rise, storm surges, flooding, and erosion.[34]

The following sections outline areas that are likely to be of interest in hazard mitigation planning and outline the risks to BEAD assets in those areas.

[34] “Community Risk and Resiliency Act (CRRA).” Department of Environmental Conservation, https://www.dec.ny.gov/energy/102559.html.

11.1.1 Geographic Areas Subject to Initial Hazard Screening

Since 2005, the New York State Division of Homeland Security and Emergency Services (DHSES) has completed a Hazard Mitigation Plan every few years. The latest State Hazard Mitigation Plan[35] (SHMP), completed in 2019, transitioned from a static planning document updated once every five years to a data-rich suite of web-based planning tools that is continuously updated through local hazard mitigation planning, State agency programs and projects, and a variety of data sources.

The SHMP uses the work conducted by the Federal Emergency Management Agency (FEMA)'s National Risk Index[36] (NRI)[37] team to identify the hazards likely to impact New Yorkers and aggregates data from numerous sources to identify areas of the state that are most at risk of impact from each hazard identified. As such, the SHMP and the NRI serve as CAO's primary sources of data for evaluating and locating risks in this section.

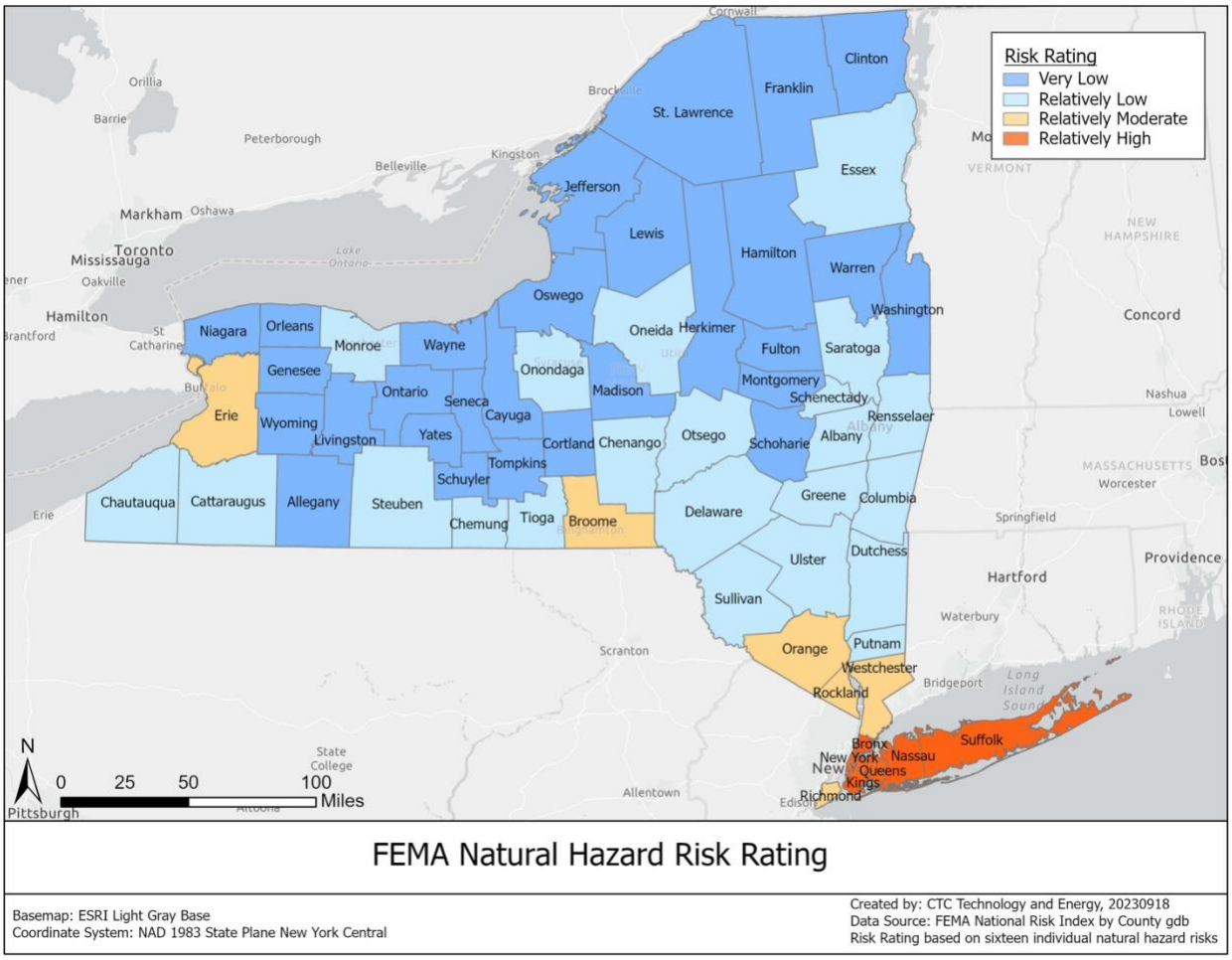
Specifically, the analysis presented in this section employs the FEMA classification scheme, assessing each county's risks relative to other counties around the nation, and ranking a county's risks as Very Low (0-20th percentile), Relatively Low (20th-40th percentile), Relatively Moderate (40th-60th percentile), Relatively High (60th-80th percentile), or Very High (60th-80th percentile).

Relative to most other states, New York does not face significant risks from climate change or natural disasters. According to FEMA's overall risk index, no counties are identified as being at very high risk, only six counties in New York State are characterized as relatively high risk, and an additional six counties are characterized as moderately high risk (Figure 2).

All six of the counties carrying relatively high risk (New York, Bronx, Queens, Kings, Nassau, and Suffolk) consist entirely of urban areas such as New York City and Long Island. These areas are known to have very few unserved or underserved locations and, therefore, are not anticipated to receive substantial BEAD-funded infrastructure deployment. The six counties facing relatively moderate risks are Richmond, Westchester, Rockland, Orange, Broome, and Erie.

[35] "2019 New York State Hazard Mitigation Plan," https://mitigateny.availabs.org/ (accessed September 21, 2023).
[36] "National Risk Index Dataset." Federal Emergency Management Agency, https://hazards.fema.gov/nri/data-resources (accessed September 21, 2023).
[37] "National Risk Index or Natural Hazards." FEMA, https://www.fema.gov/flood-maps/products-tools/national-risk-index.

Figure 2: FEMA Natural Hazard Risk Rating Map Of New York State



11.1.2 Key Weather and Climate Hazards

The weather and climate hazards that are most important to account for and respond to in New York State are those associated with extreme rain and winds (e.g., flooding, strong winds, tornadoes, hail, and lightning), those associated with extreme winter storms (e.g., ice storms and cold waves), and those risks specific to coastal areas (e.g., hurricanes and coastal flooding).

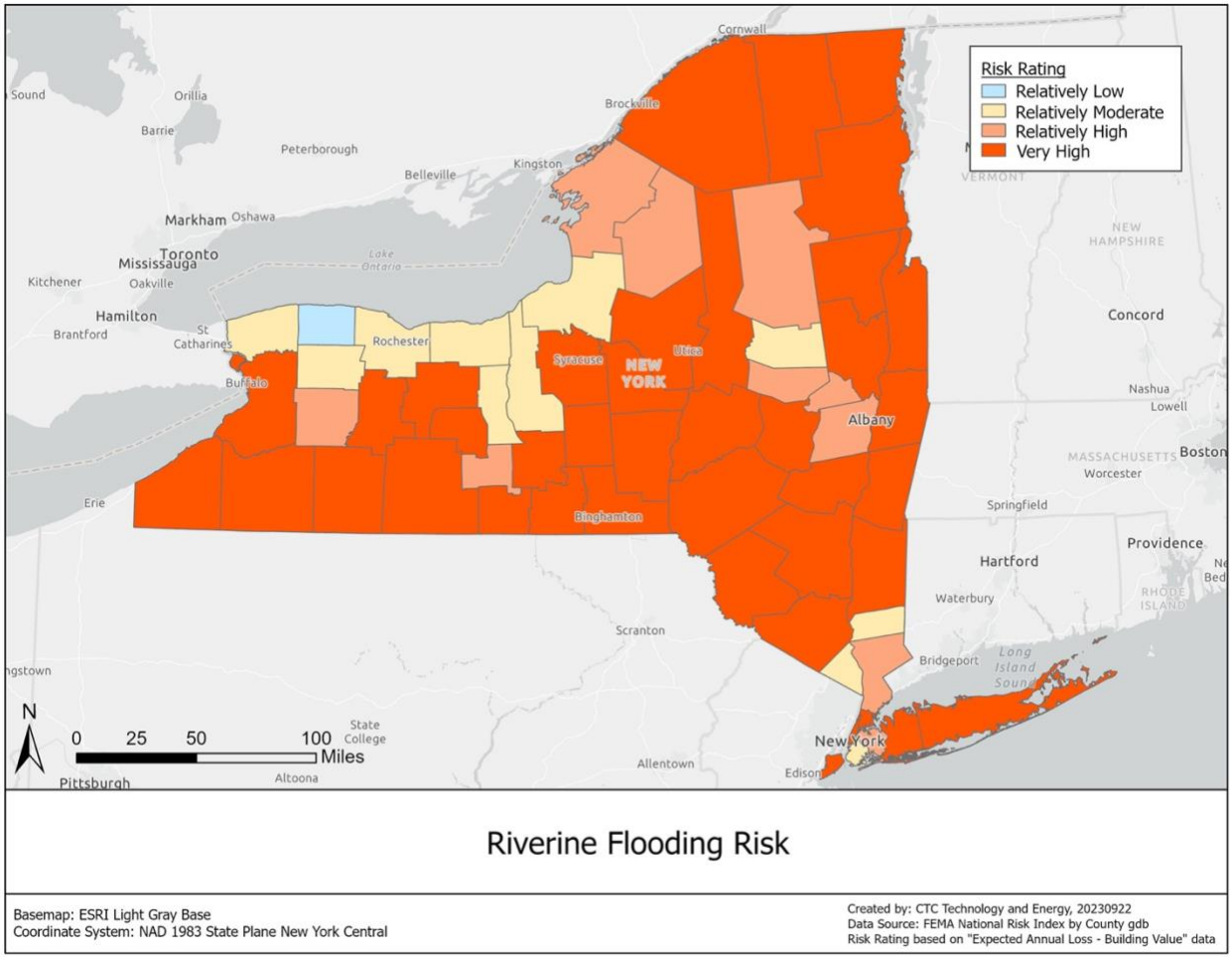
Other threats include avalanches, droughts, tsunamis, heat waves, landslides, and wildfires, but these threats either rarely impact New York communities, or are considerably unlikely to cause serious damage over the useful life of BEAD-funded infrastructure.

To identify where hazards will increase the risk posed to BEAD-funded assets, the State analyzed the estimated annual losses to buildings for individual hazards across the state to understand the risk to BEAD assets associated with individual hazards. The contextualizing narratives below are drawn from the SHMP.

11.1.2.1 Inland (or Riverine) Flooding

Flooding is the largest loss-generating natural hazard in the state. Every county and many communities in the state have experienced some kind of flooding after spring rains, heavy thunderstorms, winter snow thaws, or ice jams. Flooding is the largest loss-generating natural hazard in the state. It is most pressing in Broome and Tioga counties.

Figure 3: Flooding Risk Map of New York State



Given the increase in intense rainfall that has accompanied climate change, the risk from riverine flooding is expected to increase in magnitude and area over time. Due to its geographic ubiquity and severity, this hazard is likely to pose a threat to BEAD assets.

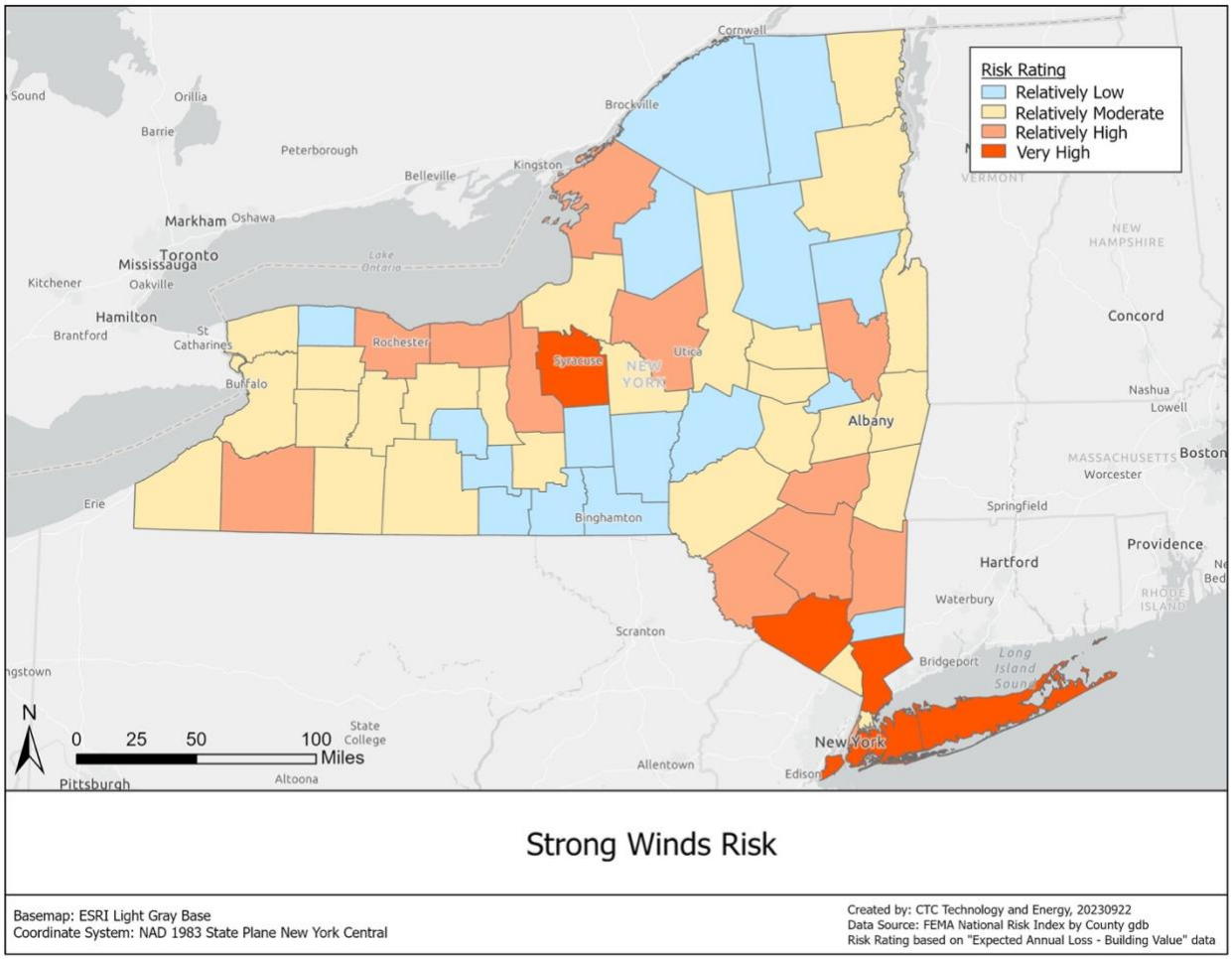
According to the Center on Rural Innovation's Broadband Climate Risk Mitigation Tool, which compares FEMA NRI risk scores and broadband availability by county, 7% of locations in Tioga County are unserved and 8% are underserved—and 67% of locations

are not served by fiber.[38] Broome County has a higher percentage of served locations (2% of locations are unserved and 2% are underserved), but only 26% of locations are served by fiber.[39]

11.1.2.2 Strong Winds

High-wind events are often associated with other storms, such as hurricanes or nor'easters, but may occur independently. Windstorms may or may not be accompanied by precipitation and can vary greatly in intensity, duration, and geographical extent.

Figure 4: Wind Risk Map of New York State



[38] "Tioga County, NY – Broadband Climate Risk Mitigation Tool." Center for Rural Innovation, https://broadband-risk.ruralinnovation.us/report_by_county?geoid=36107&location=Tioga%20County,%20NY (accessed September 25, 2023).

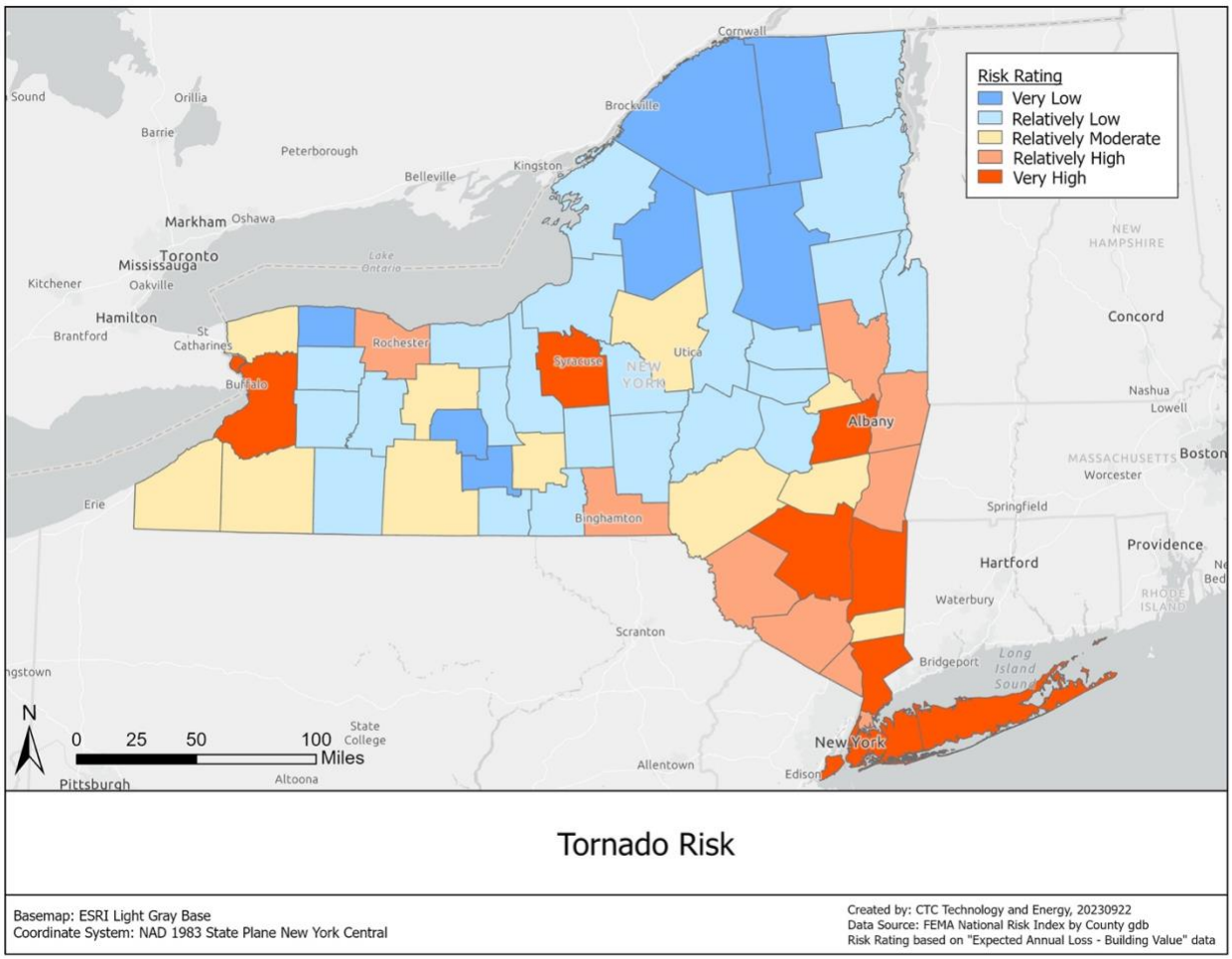
[39] "Broome County, NY – Broadband Climate Risk Mitigation Tool." Center for Rural Innovation, https://broadband-risk.ruralinnovation.us/report_by_county?geoid=36007&location=Broome%20County,%20NY (accessed September 25, 2023).

In New York State, high winds can cause flying debris or downed trees and power lines that pose a threat to safety and property. These events can cause significant damage to communities and infrastructure. Construction sites are especially vulnerable to high winds because they are so exposed to the elements. Tools, construction materials, cranes, scaffolding, derricks, concrete formwork, sidewalk bridges, and other items may loosen in high winds.

In New York, the counties comprising New York City and its suburbs face very high risks from strong winds. These areas are known to already be largely served, and as such there is very limited BEAD-funded deployment anticipated in these areas. In the center of the state, Onondaga County also faces high risks, but with substantially more anticipated BEAD deployment—which may suggest the need for additional risk mitigation strategies by subgrantees' construction teams.

11.1.2.3 Tornadoes

Figure 5: Tornado Risk Map of New York State

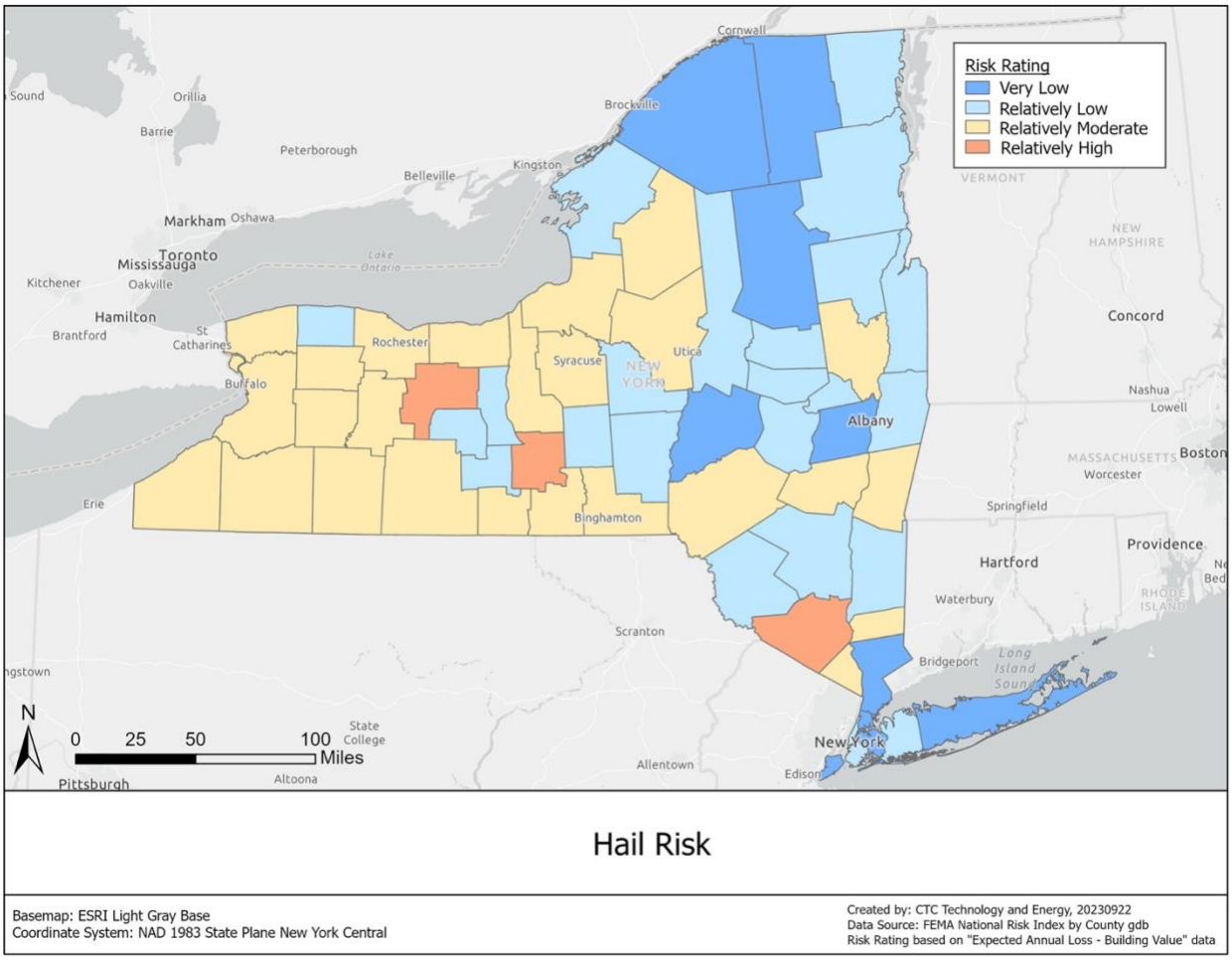


Tornadoes can cause significant damage to communities and infrastructure as a result of high wind velocity and wind-blown debris. Tornadoes generally cause the greatest damage to structures of light construction, including residential dwellings and vulnerable manufactured homes, with varying effects based on construction type and age.

In New York, the counties comprising New York City and its suburbs face very high risks from tornadoes.[40] These areas are known to already be largely served, and as such there is very limited BEAD-funded deployment anticipated in these areas. Elsewhere, Onondaga, Albany, and Erie counties also face high risks, but with substantially more anticipated BEAD deployment. This may be the cause for additional risk mitigation strategies by the subgrantees' construction teams.

11.1.2.4 Hail

Figure 6: Hail Risk Map of New York State



Hail can cause severe crop damage and may affect vehicles, roofs, landscaping and other areas of the built environment. Hailstorm events can occur anywhere within New York State independently or during a tornado, thunder or lightning storm event. In comparison to other natural hazards, most local jurisdictions rank hail as a "low" or "moderately low" risk hazard.

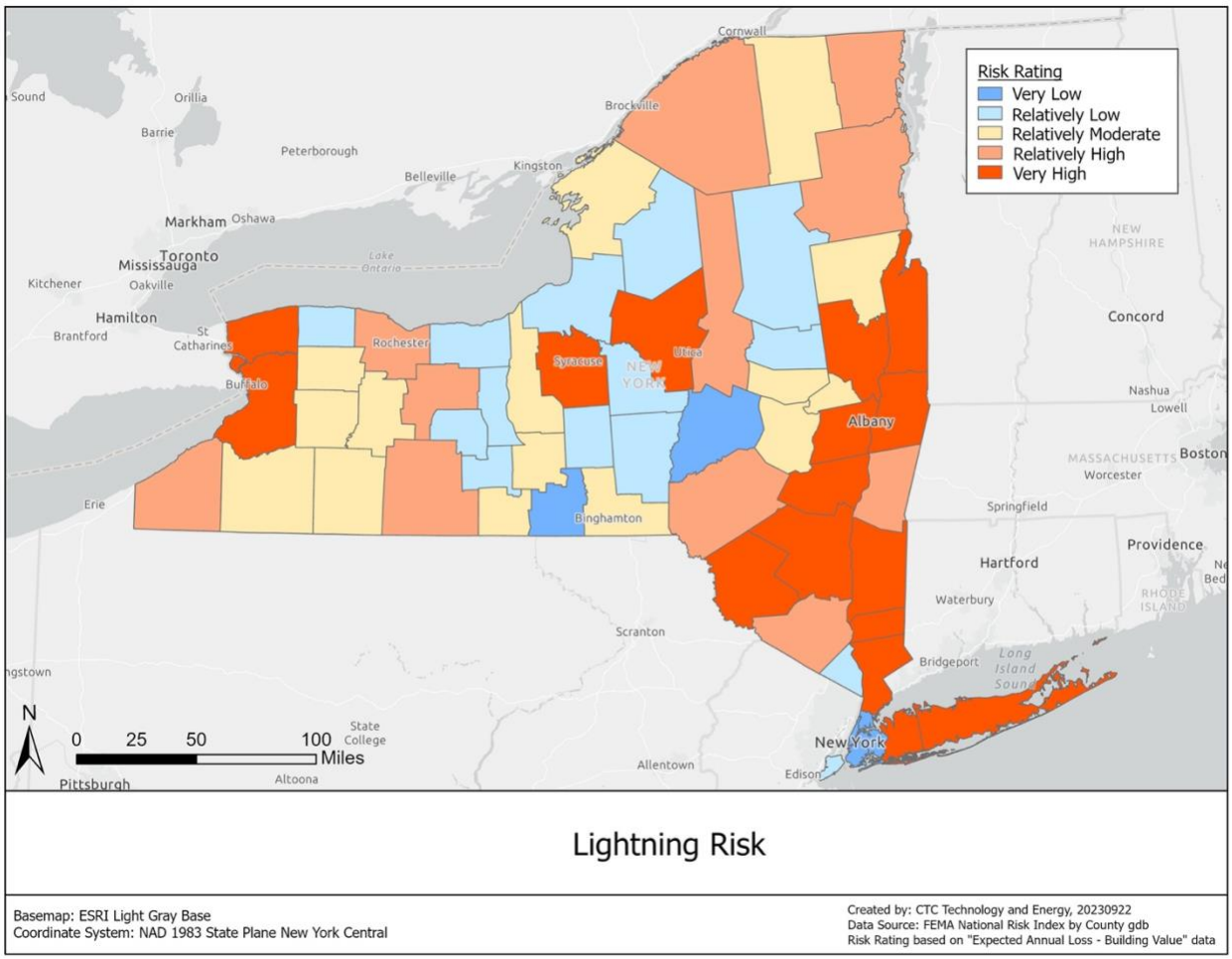
[40] This may be a result of methodological design: Areas with more, and more expensive, buildings have larger exposures, even if they are not substantially likely to be hit by a tornado.

In New York State, there are no counties that face very high risks from hail, and only three face relatively high risks: Ontario, Orange, and Tompkins counties. Project planners may be advised to take hail into consideration in these counties.

Changing future conditions have the potential to exacerbate the severity and intensity of winter storms, including hail, in the near future. Along longer timelines (>10 years), a warming climate may also result in warmer winters, the benefits of which may in time include a lower frequency of hail events. It is difficult to predict this system due to the uncertainties in long term models of climate change.

11.1.2.5 Lightning

Figure 7: Lightning Risk Map of New York State



Lightning is dangerous for communications equipment (e.g., radio or cell towers, antennae, satellite dishes) and can hamper communication and emergency response. Lightning strikes can also cause significant damage to buildings, critical facilities, and infrastructure, largely by igniting fires. Lightning can also ignite a wildfire.

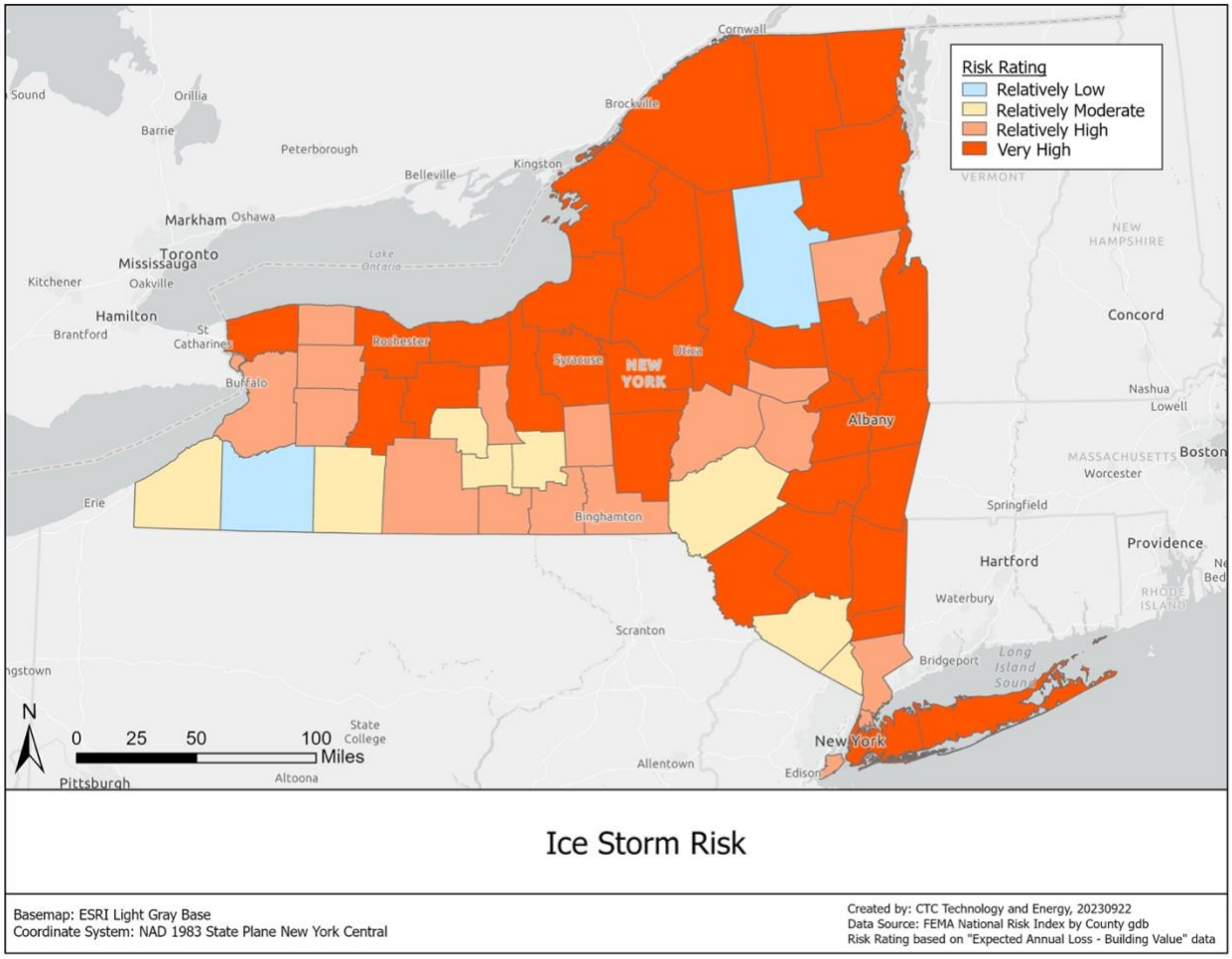
Throughout the state, counties face risks from lightning, and this hazard will need to be considered when placing fiber or fixed wireless equipment on poles or vertical assets. These risks are mitigated by adherence to industry-standard construction procedures, as lightning has been a known threat to communications equipment for many decades.

11.1.2.6 Ice Storms

New York State is exceptionally prone to serious ice storms, which typically occur from late October through mid-April.[41]

Typically, the most widespread and longest lasting impact of ice storms is the loss of electrical power. The buildup of a quarter inch of ice can have severe impacts: Ice can increase the weight of tree branches up to 30 times and can add 500 pounds of extra weight to electrical lines. Consequently, tree branches, communications towers, power lines, and power poles can fall. Roads also become slippery at this stage.

Figure 8: Ice Storm Risk Map of New York State



Rural areas are most likely to suffer from long power outages because utilities prioritize areas with greater numbers of customers and because fallen trees may limit accessibility. Urban areas tend to suffer more economic and physical damage than rural

[41] "New York." NOAA National Centers for Environmental Information, 2022, https://statesummaries.ncics.org/downloads/NewYork-StateClimateSummary2022.pdf.

areas because of the concentration of utilities and transportation systems (e.g., aircraft, trains, buses, vehicles).

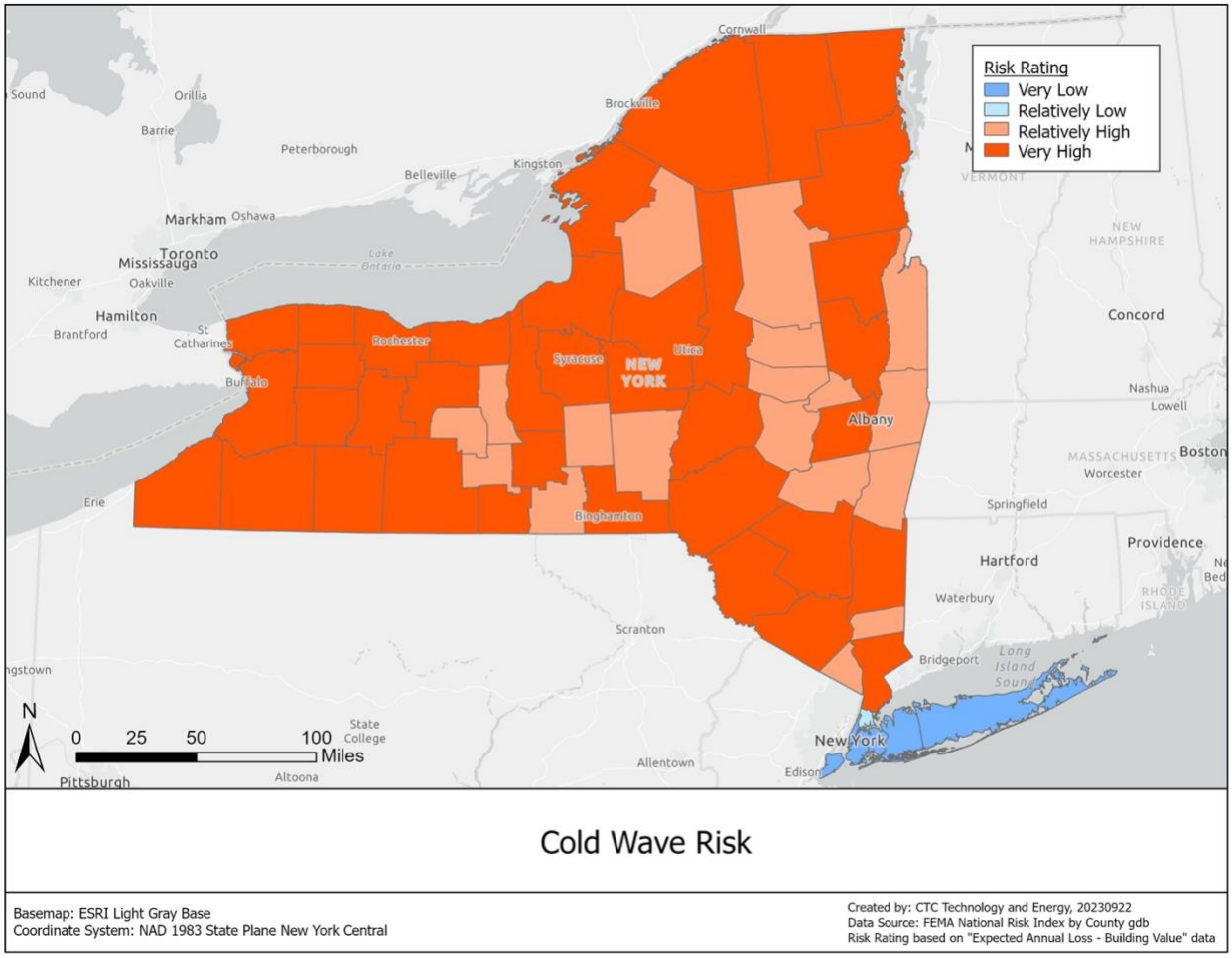
As a result, ice storms will likely be a threat to BEAD deployments throughout the state, and subgrantees will need to account for associated risks in planning and construction.

Changing future conditions have the potential to exacerbate the severity and intensity of winter storms, including ice storms, in the near future. Along longer timelines (>10 years), a warming climate may also result in warmer winters, the benefits of which may in time include a lower frequency of ice events. It is difficult to predict this system due to the uncertainties in long-term models of climate change.

11.1.2.7 Cold Waves

New York State's location in the northeast United States makes it highly susceptible to extreme cold that can cause impact to human life and property. In buildings, pipes may freeze and burst, causing floods.

Figure 9: Extreme Cold Risk Map of New York State



Changing future conditions have the potential to exacerbate the severity and intensity of winter storms and cold waves in the near future. Along longer timelines (>10 years), a warming climate may also result in warmer winters, the benefits of which may in time

include a lower frequency of extreme cold events. It is difficult to predict this system due to the uncertainties in long-term models of climate change.

11.1.2.8 Hurricanes

A hurricane, or tropical cyclone, is one of the most destructive kinds of storms. High sustained winds within the storm can cause widespread structural damage to both man-made and natural structures. The prevailing winds of a hurricane over an ocean push a wall of water, called a storm surge, in front of it. If the storm surge happens to coincide with high tide, it can cause beach erosion and significant inland flooding. Hurricane winds may additionally spawn tornadoes, resulting in further damage.

Parts of New York State are particularly susceptible to the hazards associated with hurricanes. For example, much of New York City and Long Island are located less than 16 feet above sea level, which places 100 square miles at risk of storm surge flooding. However, these areas are known to already be largely served, and as such there is very limited BEAD funded deployment anticipated in these areas.

Elsewhere, Dutchess, Orange, Ulster, and Albany counties also face high risks, but with substantially more anticipated BEAD deployment—which may be cause for additional risk mitigation strategies by subgrantees' construction teams.

In Dutchess County, for example, 6% of locations are unserved, and 7% are underserved, while only 38% of locations have access to fiber.[42] Only 3% of Ulster County locations have access to fiber, although 96% of locations are served at 25/3 Mbps and 96% have access to 100/20 Mbps service.[43]

Changing future conditions are very likely to increase warming in the Atlantic Ocean, causing an increase in hurricanes across the coast. New York State may require substantial retrofitting of buildings and other assets to prepare for this future.

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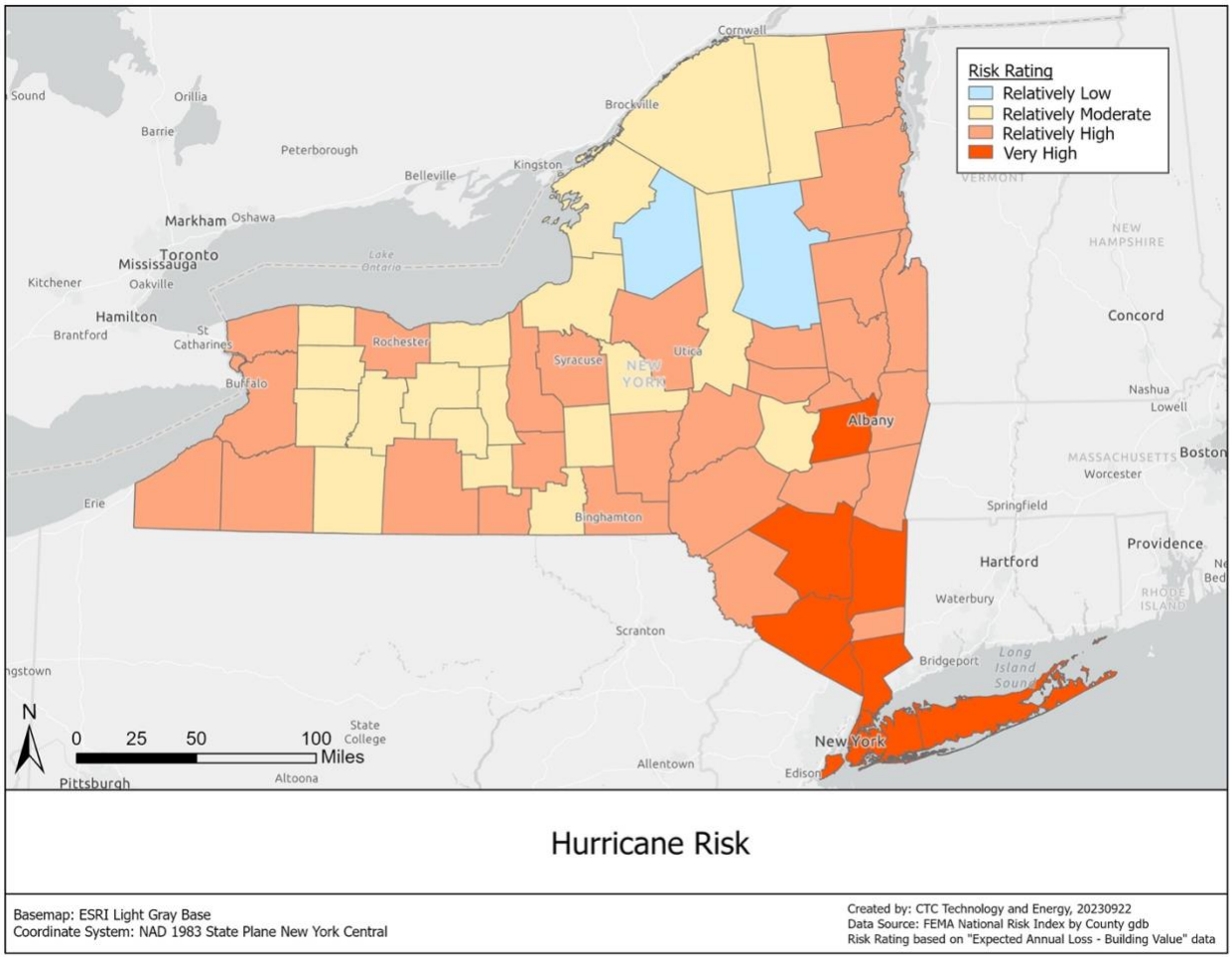
[42] "Dutchess County – Broadband Climate Risk Mitigation Tool." Center on Rural Innovation, https://broadband-risk.ruralinnovation.us/report_by_county?geoid=36027&location=Dutchess%20County,%20NY (accessed September 25, 2023).

[43] "Ulster County – Broadband Climate Risk Mitigation Tool." Center on Rural Innovation, https://broadband-risk.ruralinnovation.us/report_by_county?geoid=36111&location=Ulster%20County,%20NY (accessed September 25, 2023).

Figure 10: Hurricane Risk Map of New York State

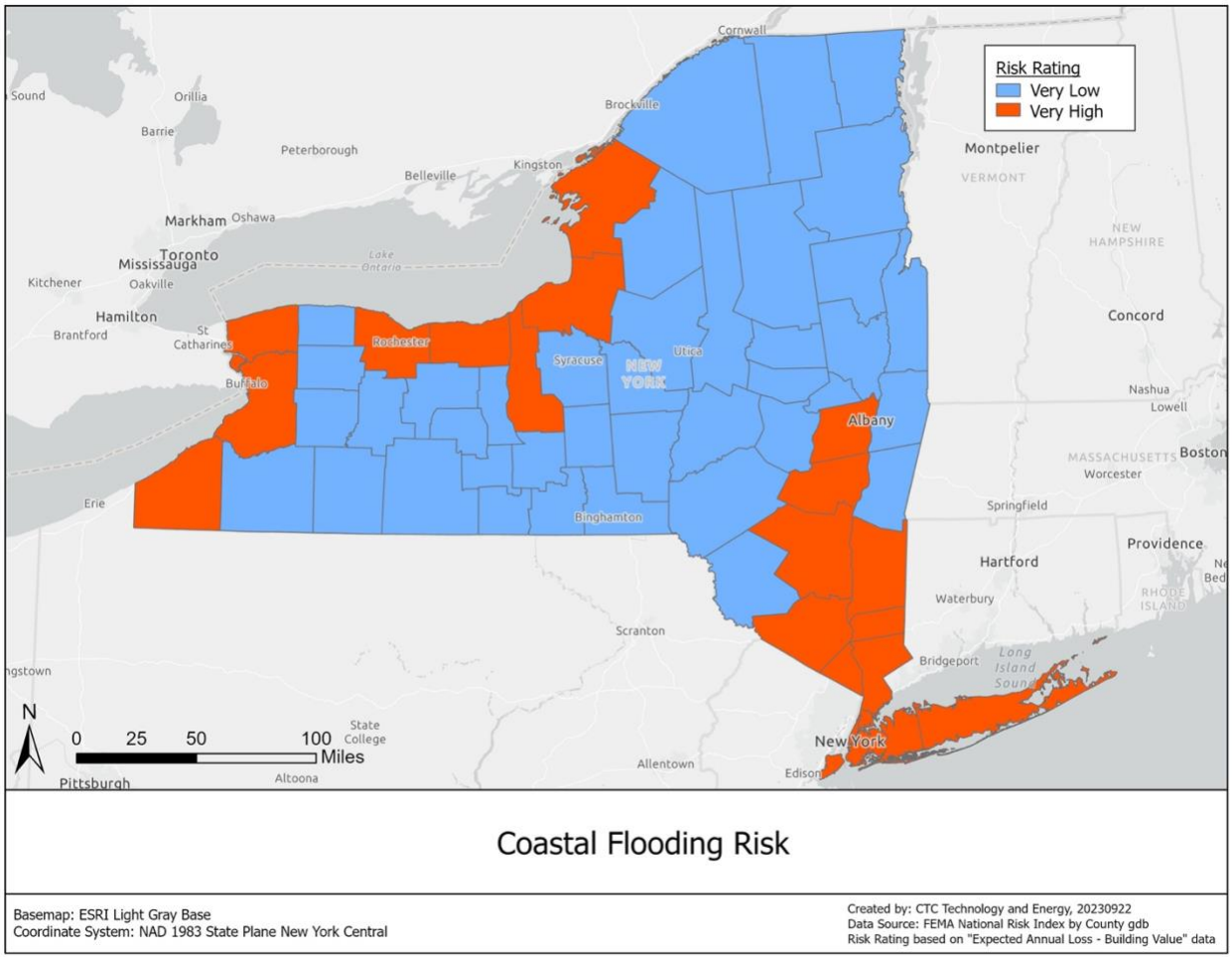


11.1.2.9 Coastal Flooding

New York State is very vulnerable to the impacts of sea-level rise, including storm surge and coastal flooding since much of New York State's coast is highly developed and populated. Sea level rise in New York State increases the frequency and intensity of severe flooding and storm surge damage, not only for communities and infrastructure, but also for critical ecosystems that buffer against floods, protect drinking water, and provide habitat for important species.

In New York State, storm surge can cause flooding, beach erosion, and damage to coastal property and infrastructure. Storm surge is the additional water above mean (average) sea level that results directly from a coastal storm. Along the coast, storm surge is often the greatest threat to life and property from a hurricane. For example, all of New York City's 26 power generation facilities are located in storm surge inundation zones, which increases the risk of a citywide outage during a major storm. Communities along the shores of Lake Erie and Lake Ontario also are faced with coastal flooding. High water levels in lakes, sometimes due to seasonal runoff, sometimes due to above-normal runoff over a longer-term period, can cause near-shore flooding.

Figure 11: Coastal Flooding Risk Map of New York State



In New York, the counties most impacted by coastal flooding and related hazards are those neighboring the Atlantic, Lake Erie, and Lake Ontario.

Changing future conditions are very likely to increase the sea level in the Atlantic Ocean, causing more frequent coastal flooding. Additionally, the anticipated warming of the Atlantic will increase the severity of storms and storm surges. New York may require substantial retrofitting of buildings and other assets to prepare for this future.

11.1.3 Potential Risks to BEAD Infrastructure

The top natural hazard risks may impact broadband infrastructure through power outages,[44] equipment damage,[45] and signal degradation.[46]

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[44] "Evaluation of Hurricane Harvey's Effects on the Internet's Edge." University of Southern California ANT Lab, https://ant.isi.edu/outage/ani/harvey/index.html.

[45] "Fiber-Optic Cables Cut: What are the Consequences and How to Fix It." Clooms, March 22, 2021, https://www.clooms.com/fiber-optic-cables-cut/.

[46] "Does Rain Affect WiFi?" WXResearch, May 10, 2023, https://wxresearch.org/does-rain-affect-wifi/.

Table 5: Weather and Climate Risks to New Infrastructure

Risks	Potential causes
Power outages	Strong winds, hurricanes, ice storms, flooding
Equipment damage	Lightning, tornadoes, ice storms, flooding, hail
Signal degradation	Flooding, hail

Strong winds, hurricanes, ice storms, and other natural hazards can cause power lines to go down or power to be turned off for safety—resulting in a break to internet accessibility. Additionally, aerial fiber (and coaxial cable) is frequently over lashed on power lines that run along poles. When tree branches or ice cause power lines to break, the applied force may also damage the over lashed asset. This risk is raised when a technician untrained in internet infrastructure or fiber attempts to fix the downed power lines by cutting through otherwise intact fiber.

Risks such as lightning, tornadoes, and flooding can threaten aerial assets of all kinds. Intense winds and debris can damage fiber and even knock down utility poles. Lightning can strike antenna and satellite equipment that is necessary for fixed wireless communications. In either case, the result is severed connectivity.

In addition, risks such as floods and hail can cause the signal between fixed wireless transmitters and receivers to be absorbed or scattered, weakening their performance.

11.1.4 Proposed Mitigation Methods

Section 4.2.1 of this Initial Proposal details how CAO will incorporate natural hazard risk mitigation planning into the subgrantee selection process, with the aim of ensuring resiliency of BEAD infrastructure over the life of the grant period and beyond. CAO will ask all Prequalification Phase participants to detail their natural hazard risk mitigation approach to broadband deployment, while asking Scoring Phase applicants whose project area includes identified high-risk areas to provide specific responses to how they will incorporate mitigation measures into their deployment planning. Additionally, CAO will favor buried fiber when compared to aerial in order to largely eliminate climate risks in many cases.

11.1.5 Addressing Evolving Risks

DHSES updates the State Hazard Mitigation Plan every five years, with the next refresh scheduled for 2024. This cadence and schedule will represent a convenient opportunity for the above analysis to be updated, such that ongoing trends can be monitored and understood. Additionally, CAO reserves the right to ask subgrantees to provide more information regarding natural hazard risk mitigation at any point during the implementation period, depending on the outcome of updated assessments.

11.2 New York State Climate Change Reports

The State of New York has produced the following relevant climate change assessments within the past five years:

- "Climate Change Considerations in Broadband Network Development," Department of Environmental Conservation, September 11, 2023, https://broadband.ny.gov/system/files/documents/2023/09/climate-change-considerations-in-broadband-network-development.2023.09.11.pdf.
- "Network Resiliency & Cybersecurity," CAO stakeholder forum presentation, September 13, 2023, https://broadband.ny.gov/connectall-events.
- "Observed and Projected Climate Change in New York State: An Overview," Department of Environmental Conservation, August 2021, https://www.dec.ny.gov/docs/administration_pdf/ccnys2021.pdf.

In addition, the New York Climate Impacts Assessment from Columbia University has published some results in 2023 and plans to publish additional data.[47]

[47] "Results." New York State Climate Impacts Assessment, https://nysclimateimpacts.org/results/.

12

Low-Cost Broadband Service Option

(REQUIREMENT 16)

12 Low-Cost Broadband Service Option (Requirement 16)

According to the most recent data available from the U.S. Census Bureau (2021), close to a million New York households do not subscribe to a fixed broadband service.[48] Though there are numerous barriers to internet adoption, affordability of service is a particularly relevant consideration in New York.

In the NTIA Internet Use Survey (2021), nearly one-fifth of offline respondents in the state reported that the primary reason they do not subscribe to service is that the cost is too high. The American Community Survey (2021) reported that 25% of New York households making less than $35,000 per year have no internet subscription—compared to 13% of households making $35,000 to $75,000 per year and 4.5% of households making more than $75,000 per year.[49] These data demonstrate that internet affordability influences adoption potential.

Perhaps the most widely utilized intervention to lower the cost of internet service is the FCC's Affordable Connectivity Program (ACP). The ACP subsidizes up to $30 per month (or $75 for Tribal applicants) for broadband for qualifying households and may include a one-time subsidy toward buying a laptop or tablet. Despite the benefit of the subsidy, the ACP is known to be greatly undersubscribed nationally.

Spearheaded by Governor Kathy Hochul in 2022, the State of New York has engaged in a multi-agency outreach effort to advertise the ACP to New Yorkers and encourage participation among eligible households. This initiative is ongoing and has been led by the New York State Department of Public Service (DPS) and CAO.[50] As of November 2023, 1,600,045 New York households (nearly 50% of estimated eligible New York households) have enrolled in the ACP[51]—establishing New York as one of the leading states in ACP enrollment nationally.

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[48] "S2801–Types Of Computers And Internet Subscriptions." U.S. Census Bureau American Community Survey Five-Year Estimates, 2017-2021, https://data.census.gov/table?t=Computer+and+Internet+Use&g=040XX00US36&tid=ACSST5Y2021.S2801.

[49] American Community Survey (2021).

[50] "Governor Hochul Announces More Than 1 Million Households Enrolled in Federal Affordable Connectivity Program." Office of the Governor, October 5, 2022, https://www.governor.ny.gov/news/governor-hochul-announces-more-1-million-households-enrolled-federal-affordable-connectivity.

[51] "ACP Enrollment and Claims Tracker." Universal Service Administrative Co., https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/#enrollment-by-state (accessed August 20, 2023).

New York residents can also apply for Lifeline—a federal program which subsidizes up to $9.25 of eligible consumers' monthly phone or internet service bills. CAO advertises and makes information about this federal program available on its website.[52]

12.1 Low-Cost Broadband Service Option Requirements

New York State seeks to provide low-income households that are at unserved and underserved locations in the state with the opportunity to receive a reliable, high-speed broadband service option, which in some cases may be the first time such households are subscribing to broadband service. In designing this approach, CAO will need to ensure that the low-cost obligation, which applies only to BEAD-funded project areas, is reasonable for grant applicants and does not deter ISPs from submitting bids to build to unserved and underserved New York locations. Moreover, ISPs have a variety of different plans and may be unable to alter their pricing structure on a large scale or may be unwilling to implement different pricing structures for BEAD-funded areas only, while maintaining other pricing in areas that are not BEAD-funded.

CAO plans to require the following of all subgrantees with regard to the required low-cost service option:

- Available at a price of no more than $65 per month, inclusive of all taxes and fees
- Available for 10 years following completion of the grant funding period
- Available to all households that meet the eligibility requirements of the ACP
- Available to households with income equal to or below 200% of the Federal Poverty Guidelines
- Allows the end user to apply the ACP (or any successor program) subsidy to the service price and encourages ISPs to ensure that prospective customers are aware of their participation in the ACP
- Meets performance requirements as established by the BEAD Program, with download speeds of at least 100 Mbps and upload speeds of at least 20 Mbps
- Delivers typical latency of no more than 100 milliseconds
- Is not subject to data caps, surcharges, or usage-based throttling, and is subject only to the same acceptable use policies as all other broadband internet access service plans offered to home subscribers by the participating subgrantee
- Allows subscribers to upgrade at no cost in the event the provider later offers a low-cost plan with higher speeds (downstream or upstream)

[52] "Get Monthly Help to Pay for Your Internet Service." ConnectALL, https://broadband.ny.gov/consumer-resources.

12.2 Certification

CAO certifies that:

☒ All subgrantees will be required to participate in the Affordable Connectivity Program[53] or any successor program.

[53] The Affordable Connectivity Program was established in the Infrastructure Act as the successor to a previous program that has since been discontinued. The Commission in 2022 issued the Affordable Connectivity Program Report and Order, which sets out details regarding the ACP's operation. See Affordable Connectivity Program, Report and Order and Further Notice of Proposed Rulemaking, FCC 22-2, (rel. Jan. 21, 2022).

13

Middle-Class Affordability Plan

13 Middle-Class Affordability Plan

An estimated 49% of adults in New York State live in middle-income households—defined by the Pew Research Center as households with an income that is two-thirds to double the U.S. median household income, or approximately $40,000 to $150,000 annually.[54] Affordable plans—and policies that support middle-class households' access to reliable broadband—are critical to ensure all New Yorkers are served.

Affordability is more than merely the concern of whether residents can afford service. Rather, affordability in the context of middle-income homes is also inclusive of residents who can afford service, in theory, but nonetheless struggle with the financial burden of paying their monthly bill. According to the Current U.S. Population Survey, conducted in the 2021 Census, approximately 3% of New York residents who do not subscribe to internet service at home said their primary reason is that internet service is "not worth the cost." [55] This figure highlights the notable number of New Yorkers that are held back from broadband adoption by financial concerns.

CAO's mandate is to establish a robust, equitable broadband marketplace for all New York residents and businesses. CAO will undertake the following activities to promote broadband affordability.

Promote structural competition. While prioritizing service to unserved and underserved locations, CAO's grant programs emphasize open access networks and shared infrastructure, which can facilitate competition and increase affordability for all consumers. Consistent with this strategy, CAO has included open access as one of its secondary scoring criteria for BEAD subgrantee proposals.

Foster competition through private investment and innovative technologies. CAO has set an objective to expand mobile coverage in the state. Mobile wireless networks can also provide fixed wireless service, including in areas that currently have only one terrestrial broadband option. CAO will also launch the ConnectALL Connectivity Innovation program to invest in innovative business models and technologies that expand affordable service for all consumers.

Promote, track, and publish benchmarks for consumers to consult. Providing consumers with a reference for pricing, services, and availability in their areas will enable informed decision-making to seek out the best services at the best prices.

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[54]Bennett, Jesse, Rakesh Kochhar, and Richard Fry. "Are You in the American Middle Class? Find out with Our Income Calculator." Pew Research Center, July 23, 2020, https://www.pewresearch.org/short-reads/2020/07/23/are-you-in-the-american-middle-class/.

[55] U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021 (accessed September 29, 2023).

Establish metrics and continue monitoring of pricing. Up-to-date and accurate pricing data will inform further policy decisions that support affordability and accessibility. CAO will consult broadband pricing data gathered by the PSC, updated annually to inform planning. In application materials, CAO will require each prospective subgrantee to report their best offers (i.e., price, speed, technology) for:

- An unbundled broadband product for $50 or less
- An unbundled broadband product for $75 or less
- An unbundled broadband product for $100 or less

14

Use of Funding

(REQUIREMENT 17)

14 Use of Funding (Requirement 17)

14.1 Planned Use of Funds Requested

CAO requests that NTIA obligate 100% of New York State's BEAD allocation, making at least 2% available immediately for programmatic work upon approval of the Initial Proposal. New York State, working closely with its partners from Tribal and local governments, industry, and community organizations, will use the funding to begin closing the digital divide as quickly as possible.

With 100% of the funding obligated, these partners will have the assurance they need to invest appropriate time and resources to participate fully in CAO's grant processes. These assurances will allow the State and its partners to move forward with its broadband deployment efforts more efficiently.

NTIA provides that the State may budget its BEAD allocation in four expense categories: deployment, programmatic, administrative, and non-deployment. Accordingly, New York plans to allocate its BEAD funds as follows:

Table 6: Planned Use of Funds Requested

Category	Details	Budget percent
Deployment costs	Subgrantee deployment costs (e.g., purchase of inventory including electronics and customer premises equipment, construction) and planning (e.g., environmental permitting, rights-of-way analysis, network design)	96%
Programmatic expenses	BEAD planning; challenge process; IT systems to run challenge and grant application processes; subgrantee selection process development and management	2%
Administrative expenses	Staffing; travel; day-to-day monitoring and oversight of subgrantees; training staff, subgrantees, and the public; ongoing stakeholder communications	2%
Non-deployment expenses	Workforce program, digital equity program supplementation, training, and capacity building	0%

Given that New York anticipates its BEAD allocation will not cover the broadband deployment expenses required to reach to all unserved and underserved locations and CAIs, CAO will not initially request funds for non-deployment activities. However, if CAO

has remaining funds after running a competitive grant process, it will amend its budget as part of its Final Proposal.

Note: *On November 2, shortly before CAO released this draft document for public comment, NTIA provided new guidance regarding the classification of workforce costs as eligible deployment uses of BEAD funds. Due to the late release of this guidance, CAO has not incorporated this guidance into the current draft of the Initial Proposal Volume II. CAO will further review NTIA's guidance and may revise this section accordingly. In the interim, CAO welcomes input and feedback from stakeholders regarding how to consider workforce activities within deployment costs.*

14.2 Initial Proposal Funding Request

CAO requests 100% of the funds remaining from New York State's BEAD allocation of $664,618,251.49.[56]

14.3 Certification

CAO certifies that:

☒ New York will adhere to BEAD Program requirements regarding Initial Proposal funds usage

[56] "Biden-Harris Administration Announces State Allocations for $42.45 Billion High-Speed Internet Grant Program as Part of Investing in America Agenda." NTIA, June 26, 2023, https://www.ntia.gov/press-release/2023/biden-harris-administration-announces-state-allocations-4245-billion-high-speed.

15

CAO Regulatory Approach

(REQUIREMENT 18)

15 CAO Regulatory Approach (Requirement 18)

The purpose of this section is to disclose whether CAO will waive all laws concerning broadband, utility services, or similar subjects that either preclude certain public sector providers from participation in the subgrant process or impose specific requirements and limitations on public sector entities.

15.1 No Laws Need to Be Waived

New York does not restrict public sector broadband providers from participation in the subgrant process nor does it impose specific requirements on public sector entities; thus, there are no such laws that will need to be waived for BEAD. New York leads the way in its efforts to close the digital divide by creating a pro-competitive environment for all broadband providers, including public sector entities. In 2022, New York opened State-level funding to support municipally owned networks through the New York State WIRED Broadband Act.[57]

[57] *See* New York State WIRED Broadband Act at https://www.nysenate.gov/legislation/laws/UDA/16-GG*2.

16

Certification of Compliance With BEAD

(REQUIREMENT 19)

16 Certification of Compliance With BEAD Requirements (Requirement 19)

16.1 Certification of Compliance

CAO certifies that it will:

☒ Comply with all applicable requirements of the BEAD Program, including the reporting requirements

CAO would like to avail subrecipients of the 2 C.F.R. 200 exceptions and adjustments that NTIA applies in the BEAD Program. Should any revisions to this Initial Proposal be needed to accomplish this, CAO requests an opportunity to make those revisions.

16.2 Subgrantee Accountability Procedures

16.2.1 Overview

CAO, in executing the BEAD Program, will work diligently to ensure the success of all its recipients' projects so that all New Yorkers have access to broadband by 2030. CAO takes its role as a steward of federal funding seriously. CAO is creating and implementing robust programmatic monitoring, including effective risk-based assessments and active interventions to make sure its subgrantees meet BEAD and the State's goals. CAO will actively protect this investment, at a minimum, using the following criteria: risk-based oversight and engagement; reporting of fraud, waste, and abuse; distribution of funding on a reimbursement basis; appropriate provisions to claw back funds from subrecipients if needed; timely reporting requirements; and robust subrecipient monitoring consistent with requirements in the 2 C.F.R. 200, and the BEAD NOFO.

16.2.2 Risk-Based Oversight and Engagement

CAO will establish an approach to its risk-based management that is pragmatic, yet effective. It is in the best interest of the State for subgrantees to successfully complete their projects and offer broadband service to those who need it most. To that end, CAO will evaluate the organizational, financial, and technical capacity and qualifications of each subgrantee, as described in Section 4.11. Then, it will assign a risk category and appropriate monitoring and technical assistance resources. The State will review these individual ratings periodically. CAO will monitor individual grants, but it will also monitor the portfolio using program-wide data to ensure early intervention when it finds cross-cutting issues.

16.2.3 Fraud, Waste, and Abuse

CAO will utilize a mechanism to report fraud, waste, and abuse operated by the Office of the New York State Comptroller.[58] The State will also utilize federal reporting mechanisms such as the U.S. Department of Commerce's Inspector General hotline.[59]

16.2.4 Distribution of Funds

CAO will indicate clearly in its guidance and through its award documentation that BEAD subgrants will be issued on a reimbursement-only basis. CAO will require the following from subgrantees before dispersing BEAD funds:

- **Reaching grant milestones:** CAO will require the timely reporting of the completion of grant milestones, according to the agreed-upon project timeline.
- **Providing compliant documentation:** CAO will require subgrantees to support a request for reimbursement through a certification and a submittal of as-builts and GIS location data, which will be verified according to procedures outlined in the contracting documents. CAO will ensure that it has a right to access documents and physical assets in a manner similar to that employed by the federal government in broadband grant programs.

16.2.5 Clawback Provisions

CAO will work with its legal team to ensure that grant awards contain clawback provisions. If subgrantees fail to meet the obligations of their awards, CAO will retain the ability to deny a reimbursement request, require partial or full forfeiture of BEAD funds, or issue financial penalties for fraud, misconduct, or non-performance. For its purposes, CAO considers non-performance to include failure to complete broadband deployment on committed timelines, failure to offer low-cost service options for the useful life of the assets, missing reporting deadlines, providing inaccurate deployment data, and failing to fulfill other BEAD Program obligations such as minimum service speeds.

16.2.6 Timely Reporting Requirements

Building on its existing broadband funding and grantmaking experience, CAO will require subgrantees to report timely on their awards to identify and mitigate risks to ensure both the State's and subgrantees' compliance with statutory, 2 C.F.R 200, and BEAD requirements. These reports will include, but not be limited to:

- Periodic reporting on project progress and fiscal performance
- Responses to intermittent requests from CAO about the project

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[58] "Report Fraud Here." New York State Comptroller, https://www.osc.state.ny.us/investigations.
[59] "Report Fraud, Waste, Abuse, & Whistleblower Reprisal." Office of the Inspector General, U.S. Department of Commerce, https://www.oig.doc.gov/Pages/Hotline.aspx.

- On-site inspections

16.2.7 Robust Subrecipient Monitoring

CAO will use various monitoring activities that produce data about subgrantee performance and progress to assess individual and portfolio risks and inform CAO decisions about targeting technical assistance, corrective action, or enforcement actions as needed. Beyond performance and financial reporting, such activities may include:

- **Desk reviews:** periodic review of subgrantees' progress and financial reports designed to ensure that CAO's own reports to NTIA contain timely information
- **Field Engineering Reviews/Audits:** engineering team evaluation of constructed segments and full projects against as-built reporting and application requirements
- **Site Visits:** periodic visits using a standardized agenda to capture firsthand observations of recipient performance along various dimensions, including subgrantee capacity, performance validation, safety practices, and employment practices

16.3 Certification of Nondiscrimination and Civil Rights

CAO certifies that it will, in its selection of subgrantees, account for:

☒ Parts II and III of Executive Order 11246, Equal Employment Opportunity

☒ Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency

☒ Executive Order 13798, Promoting Free Speech and Religious Liberty

Additionally, prior to distributing any BEAD funding to a subgrantee, CAO will require the subgrantee to agree, by contract or other binding commitment (to be determined by counsel), to abide by the non-discrimination requirements set forth in the following legal authorities, to the extent applicable, and to acknowledge that failure to do so may result in cancellation of any award and/or recoupment of funds already disbursed:

☒ Title VI of the Civil Rights Act

☒ Title IX of the Education Amendments of 1972

☒ The Americans with Disabilities Act of 1990

☒ Section 504 of the Rehabilitation Act of 1973

☒ The Age Discrimination Act of 1975

☒ Any other applicable non-discrimination law(s)

16.4 Certification of Cybersecurity and Supply Chain Risk Management

The State certifies that it will comply with the cybersecurity requirements of the BEAD NOFO to require prospective subgrantees to attest that:

☒ The prospective subgrantee has a cybersecurity risk management plan (hereafter in this list, "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.

☒ 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.

☒ The plan will be reevaluated and updated on a periodic basis and as events warrant.

☒ The plan will be submitted to CAO prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to CAO within 30 days.

CAO further certifies that it will ensure subgrantee compliance with the supply chain risk management requirements of the BEAD NOFO to require prospective subgrantees to attest that:

☒ The prospective subgrantee has a supply chain risk management plan (hereafter in this list, "the 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.

☒ 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.

☒ The plan will be reevaluated and updated on a periodic basis and as events warrant.

☒ The plan will be submitted to CAO prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to CAO within 30 days. CAO will provide a subgrantee's plan to NTIA upon NTIA's request.

CAO will ensure that, to the extent a BEAD subgrantee relies in whole or in part on network facilities owned or operated by a third party, it will obtain the above attestations from its network provider with respect to cybersecurity practices and supply chain risk management practices.

The New York State Cybersecurity Strategy, issued in August 2023 by Governor Hochul, will support CAO's efforts to ensure subgrantee compliance with these requirements by setting out a framework for public and private stakeholders across the state to "collectively work toward a shared vision for protecting New York."[60] Based on the core principles of unification, resilience, and preparedness, the strategy intends to align stakeholders' resources and efforts to defend digital assets, critical infrastructure, and personal information against malicious actors. The State's Chief Cyber Officer, appointed in 2022, is responsible for implementing the strategy.

[60] "New York State Cybersecurity Strategy." August 2023, https://www.governor.ny.gov/sites/default/files/2023-08/2023-NewYork-CybersecurityStrategy.pdf.

Appendix 1: Survey Instruments

The State published targeted stakeholder surveys in conjunction with the stakeholder outreach efforts and continued to promote the surveys and encourage stakeholders to submit responses for an extended time period during preparation of the BEAD Five-Year Action Plan and this Initial Proposal Volume II.

Survey Instrument 1: New York State Internet Access Survey

This survey was distributed statewide from May 18 to July 5, 2023.

New York State's ConnectALL Office wants to hear from you about your experiences with getting and using internet service. Your input will help the State make sure that everyone can have access to high-quality and affordable internet service, devices, skills training, and digital support.

This survey is available in 11 languages: Arabic, Bengali, Chinese (Simplified), French, Haitian Creole, Italian, Korean, Polish, Russian, Spanish, and Urdu. You can select the language of your choice from the top-right corner of this page.

Important notes about this survey:

- All questions are optional, unless otherwise noted with an asterisk (*). You may skip all optional questions.
- You can exit the survey at any point and return to the same page where you left by coming back to this website.
- The survey is completely anonymous – we collect demographic information (e.g., race/ethnic background, age, household income level) so that we can make sure we are representing all neighborhoods and demographic groups, but we will NOT be collecting any personally identifiable information (e.g., name, email, address).
- Data from this survey will be retained for one year following the approval of the State's Digital Equity Plan, then destroyed.

Time needed: 15 minutes

Who should take the survey: Residents of New York State (1 response per household)

Thank you for your time and participation. Information you share here will help us develop the New York State Digital Equity Plan and ensure equitable internet access for all.

***Q1.** Do you reside in New York and are you 18 or older?

a. Yes
b. No

[Skip logic: If "Yes" ask Q2; if "No" display message below:]

Unfortunately, this survey is restricted to New York residents 18 years of age and older. Please visit broadband.ny.gov to learn about other ways to contribute to the planning process.

Part 1: Use of the Internet

***Q2.** What do you use the internet for mostly? (Select all that apply)

a. To work or make money
b. To attend school, take classes, or learn
c. To communicate with doctors and health providers
d. To be social, or to keep in touch with friends, family, and neighbors
e. To participate in your local community
f. To apply for benefits or use government services

Q3. If you are not able to regularly use the internet, what would you use it for if you could? (Select all that apply)

a. To work or make money
b. To attend school, take classes, or learn
c. To communicate with doctors and health providers
d. To be social, or to keep in touch with friends, family, and neighbors
e. To participate in your local community
f. To apply for benefits or use government services
g. Other (please specify) _____

Part 2: Broadband Availability, Affordability, and Access

***Q4**. Do you have internet service in your home?

a. Yes
b. No

[Skip Logic: If "Yes" ask Q5; if "No" ask Q12]

***Q45.** If you have internet service in your home, what kind is it? (Select all that apply)

a. A data plan for a smartphone, hotspot, or tablet
b. Cable internet
c. Fiber optic internet
d. DSL internet
e. Fixed wireless internet
f. Satellite internet
g. Dial-up internet
h. Community Wi-Fi (such as free Wi-Fi provided by a community organization)
i. I don't know

***Q6.** Which of these options best describes your internet service at home in terms of speed and reliability?

a. Adequate or good enough for my needs and/or my family's needs
b. Not adequate or good enough for my needs and/or my family's needs
c. I don't know

Q7. On a rating scale of 1 to 5, how reliable is the customer service from your home's Internet Service Provider (for example, when you contact the company to ask a question about your service)?

1. Extremely reliable
2. Very reliable

3. Reliable
4. Slightly reliable
5. Not at all reliable

Q8. Who is your internet service provider? *[drop-down of top 20 ISPs in the state]*
a. None of the above

Q9. Is your home internet service bundled with other services such as telephone or TV?
a. Yes
b. No

[Skip Logic: If "Yes" ask Q10a; if "No" ask Q10b]

Q10a. Not counting the costs of other services in your bundle, to the nearest dollar, how much do you pay for internet service every month?

$_____

Q10b. To the nearest dollar, how much do you pay for internet service every month?

$_____

***Q11**. How difficult, if at all, is it for you to pay your internet bill every month given other expenses?
a. Not at all difficult
b. Not too difficult
c. Somewhat difficult
d. Very difficult

***Q12.** If you do not have internet service in your home, what is the main reason why?
a. Service is not available in my area
b. Service is too expensive
c. I am concerned about online privacy or safety
d. I don't feel confident navigating the internet or using online tools
e. I can't afford or don't have access to a device to use the internet
f. Other (please specify) _____

Q13. Are there any other locations outside of your home where you regularly access internet? Please check all that apply.
a. At work
b. At a friend or family member's home
c. At school
d. At a library or community center
e. At a business such as a restaurant, cafe, or bookstore (e.g., McDonald's, Taco Bell, Starbucks, etc.)
f. In a public space such as a park or government building
g. In a parking lot outside of one of these spaces
h. On public transit
i. I do not regularly access internet in these or any other spaces
j. Other (please specify)

Q14. At what monthly price would a home internet subscription be too expensive for you? We're looking for a price per month in dollars.

$_____

***Q15.** Have you heard about the Affordable Connectivity Program (ACP) that provides discounted internet service for low-income households?

a. Yes
b. No
c. I don't know

Part 3: Device Availability, Affordability, and Support

***Q16.** Does everyone in your household have access to the computer devices they need (e.g., computers, smartphones, tablets, or other internet enabled devices)?

a. Yes
b. No

Q17. Which of the following devices do you use most of the time to connect to the internet? (Select all that apply)

a. Cell phone
b. Desktop computer
c. Laptop computer
d. Tablet (or similar device)
e. I don't know
f. I don't have a device that can connect to the internet
g. Other (please specify) _____

Q18. Have any of the following devices failed or stopped working right for you recently? (Select all that apply)

a. Cell phone
b. Desktop computer
c. Laptop computer
d. Tablet (or similar device)
e. Other type of device (please specify)
f. None of my devices have failed recently

[Skip Logic: If "a"-"e" above ask Q19; if none skip to Q20]

Q19. When that device stopped working right, how did you deal with the problem? (Select all that apply)

a. I contacted user support for help
b. I fixed the problem myself
c. I fixed the problem with help from friends or family
d. I found help online
e. I went to a local computer store
f. I went to a community institution, such as a school, library, or church
g. I was not able to fix the problem at all

***Q20.** If you were going to buy a desktop or laptop computer, how much would be too much to pay for it?

a. $50
b. $100

c. $150
d. $250
e. $500
f. More than $1,000

Part 4: Digital Skills

Q21. How confident do you feel with doing the following activities online?
(Completely confident / Fairly confident / Slightly confident / Not confident)

a. Search for and apply for jobs, including creating and submitting a resume
b. Find trustworthy information about a health or medical question
c. Take a course or find learning materials
d. Access online banking or financial services
e. Access or apply for government services
f. Use a video chat service, such as Zoom, for work, school, or telehealth
g. Use a word processing application, such as Google Docs or Microsoft Word, to create a document
h. Find ways to protect the privacy of your personal data
i. Use email
j. Use social media
k. Online shopping

***Q22.** How easy or difficult is it for you to navigate the internet to do what you need (e.g., to find reliable information, to use bill pay portals, to register for school, to sign up for or cancel streaming services)?

a. Very easy
b. Somewhat easy
c. Somewhat difficult
d. Very difficult

Part 5: Online Privacy and Internet Safety

***Q23.** How concerned are you about internet safety?

a. Not at all concerned
b. Not very concerned
c. Somewhat concerned
d. Very concerned

[Skip Logic: If "c" or "d" to any of the options above ask Q24; if "a" or "b" skip to Q25]

Q24. What are you most concerned about?
(Select all that apply)

a. That my data could get stolen or used without my consent
b. That I or a loved one could get scammed or tricked
c. That I could be tracked or surveilled
d. That I or a loved one could be harassed or abused online
a. Other (please specify)

Q25. Are you aware of tools or resources you can use to stay safe online?

a. Yes, I have tools and resources I use to stay safe online
b. No, I don't know of any tools or resources to stay safe online
c. I know of tools or resources to stay safe online, but they don't work for me
d. Other (please specify) _____

Part 6: Online Public Services

Q26. In the past year, have you used the internet to do any of the following?
(Select all that apply)

a. Find information about government services or resources (e.g., voter registration, DMV, property information/building permits)
b. Search for government statistics or documents
c. Access recreational or tourist information (e.g., information about visiting State parks or cities)
d. Find information about public health issues
e. Apply for or manage government benefits (e.g., SNAP, TANF, Social Security)
f. Enroll in Internet subsidy programs (e.g., Affordable Connectivity Program)

***Q27**. How accessible are online public resources for you?

a. Very accessible
b. Somewhat accessible
c. Not very accessible
d. Not at all accessible

Q28. How would you rate your past experiences using online government services like benefits portals, DMV services, or paying for permits or tickets?

a. Excellent
b. Good
c. Fair
d. Poor

Part 7: Demographic Questions

***Q29.** What is your gender identity?

a. Female
b. Male
c. Non-binary person
d. Other
e. Prefer not to answer

***Q30.** What is your age?

a. Under 18
b. 18 to 24
c. 25 to 34
d. 35 to 44
e. 45 to 59
f. 60 to 74
g. 75 or older
h. Prefer not to answer

***Q31.** How many people, including yourself, currently live in your household?

a. 1
b. 2
c. 3
d. 4
e. 5
f. 6

g. 7
h. 8 or more
i. Prefer not to answer

***Q32.** How many children under age 18 currently live in your household?
a. 0
b. 1
c. 2
d. 3
e. 4
f. 5 or more
g. Prefer not to answer

***Q33.** Do you or anyone in your household have difficulty with reading, writing, or speaking in English?
a. Yes
b. No
c. Prefer not to answer

***Q34.** What is the highest level of school you have completed or the highest degree you have received?
a. Less than high school (Grades 1-8 or no formal schooling)
b. High school incomplete (Grades 9-11 or Grade 12 with NO diploma)
c. High school graduate (Grade 12 with diploma or GED certificate)
d. Some college, no degree (could include some community college)
e. Two-year associate degree from a college or university
f. Four-year college or university degree/Bachelor's degree (e.g., BS, BA, AB)
g. Some postgraduate or professional schooling, no postgraduate degree
h. Postgraduate or professional degree, including master's, doctorate, medical or law degree (e.g., MA, MS, PhD, MD, JD)
i. Prefer not to answer

***Q35.** Are you of Hispanic, Latino, or Spanish origin, such as Mexican, Puerto Rican, or Cuban?
a. Yes
b. No
c. Prefer not to answer

***Q36.** Which of the following best describes your race? (Select all that apply)
a. White or Caucasian
b. Black or African-American
c. Asian or Asian-American
d. Native American/American Indian/Alaska Native
e. Pacific Islander/Native Hawaiian
f. Other (please specify) _____
g. Prefer not to answer

***Q37.** Do you belong to a North American Indigenous, Native, or Tribal group?
a. Yes
b. No
c. Prefer not to answer

***Q38.** What is your total annual household income from all sources, and before taxes?
a. Less than $15,000
b. $15,000 to $19,999
c. $20,000 to $24,999
d. $25,000 to $29,999
e. $30,000 to $39,999
f. $40,000 to $49,999
g. $50,000 to $74,999
h. $75,000 to $99,999
i. $100,000 and over
j. Prefer not to answer

***Q39.** Do you identify as a person with a disability?
a. Yes
b. No
c. Prefer not to answer

[Skip Logic: If "Yes" ask next question; otherwise ask Q41]

Q40. Do you have difficulty in any of the following areas? (Select all that apply)
a. Seeing even if wearing glasses
b. Hearing even if using a hearing aid
c. Walking or climbing steps
d. Remembering or concentrating
e. Self-care
f. Communicating, for example understanding or being understood
g. Prefer not to answer

***Q41**. Do you identify as a member of the LGBTQIA+ community?
a. Yes
b. No
c. Prefer not to answer

***Q42.** Did you serve on active duty in the U.S. Armed Forces? (Select all that apply)
a. Gulf War era II (September 2001–present)
b. Gulf War era I (August 1990–August 2001)
c. Vietnam era (August 1964–April 1975)
d. Korean War (July 1950–January 1955)
e. World War II (December 1941–December 1946)
f. Other service periods (all other time periods)
g. No; I have not served on active duty in the U.S. Armed Forces

***Q43.** Which of the following best describes the place where you now live?
a. A large city
b. A suburb near a large city
c. A small city or a town
d. A rural area
e. A Tribal area

***Q44.** Do you live in affordable housing (subsidized by a housing authority, paid for through a voucher, or in a building run by a private developer)?
a. Yes
b. No

c. I don't know
d. Prefer not to answer

[Skip Logic: If "Yes" ask next question; otherwise ask Q46]

Q45. If yes, what type of affordable housing?

a. Public housing (my household pays rent to the public housing authority)
b. Housing that used to be public housing but went through a RAD conversion (my household now pays rent to a private owner and does not use a Section 8 voucher)
c. Housing managed by a private owner (my household pays rent using a Section 8 voucher)
d. Housing managed by a private owner that my household qualified for based on household income (my household pays rent directly to a private owner)
e. I'm not sure what type of affordable housing I live in
f. Prefer not to answer

***Q46.** What is your zip code? _____

***Q47.** Please select the county where you primarily live. *[drop-down]*

Q48. Where did you hear about this survey? (Select all that apply)

a. From a government website, email list, flyer, or other outreach
b. From a friend, colleague, or acquaintance
c. From a community meeting, community anchor institution such as a library or school, or other local institution
d. From an organization's website, email list, flyer, or other outreach
e. Other (Please specify) _____

[Skip Logic: If "c" or "d" above, ask next question; otherwise ask Q50]

Q49. Which local institution or organization did you hear about this survey from? _____

<u>Part 8: Internet Speed Test</u>

***Q50.** Would you like to know how fast your internet connection is? If yes, choose "Take the Internet Speed Test," and click "Next," and the survey will automatically start a test to measure the speed of your internet connection. No personally identifying information (name, address, etc.) will be recorded. The goal of this question is to measure the quality of your home internet service. Please make sure you are at home and connected to your home internet network before starting.

If you are not taking this survey from your home, please choose, "Skip the Internet Speed Test" and click "Next."

If you prefer not to run the Internet Speed Test, please choose "Skip the Internet Speed Test," and click "Next."

a. Take the Internet Speed Test
b. Skip the Internet Speed Test

[Skip Logic: If "a" above, ask Q51; otherwise skip to last page]

Q51. The Internet Speed Test has started. Please wait a few seconds for the Internet Speed Test results to appear.

Once a Download and Upload number appears, please enter those values in the corresponding boxes below. Once you have entered your Download and Upload speeds, click on “Next” to proceed. Please note that no personal data will be collected as part of this speed test.

1. Please enter your download speed (Mbps): _____
b. Please enter your upload speed (Mbps): _____

Almost Done!
This is the last page of the survey. If you’d like to go back and edit any of your answers, click the "Previous” button below. **Otherwise, click “Next” to submit your responses.**

Make sure to click "Next" otherwise your responses may not be recorded!

End
Thank you for completing the New York State Internet Access Survey!
Your response will help shape New York's policies and investments to close the digital divide for all residents.

Please encourage your friends, colleagues, and community members to take the survey as well: www.bit.ly/connectall-survey.

About ConnectALL
The mission of ConnectALL is to build New York State's digital infrastructure and connect all New Yorkers through the internet. The ConnectALL Office oversees the statewide digital equity plan and administers over $1 billion in public investments across the state. Learn more at www.broadband.ny.gov.

Survey Instrument 2: Internet Service Provider Survey

This survey was shared as a follow-up to participants in CAO's ISP Virtual Forum on June 20, 2023.

Introduction

New York State's ConnectALL Office (CAO) seeks your input on a range of broadband-related issues. Your responses to this brief survey will be an important part of New York State's work toward achieving statewide universal access to high-speed broadband with federal funding through the Broadband, Equity, Access, and Deployment (BEAD) and Digital Equity Planning programs.

Section 1: General Information

1. **Organization Information:**
    a. Organization name
    b. Organization street address
    c. Organization city
    d. Organization zip
    e. Organization website URL

2. **Is your organization open to being contacted by the ConnectALL Office to discuss your responses to this survey in more detail?**
    a. Yes
    b. No

[Skip logic: If yes, display Q3 in this section, otherwise skip to Q4]

3. **Please provide a point of contact who the ConnectALL Office can follow up with.**
    a. Point of contact name
    b. Point of contact title
    c. Point of contact email

4. **Organization's number of employees:**
    a. Under 5
    b. 5-24
    c. 25-49
    d. 50-99
    e. 100-499
    f. 500-1500
    g. 1,500+

5. **Scope of operations:**
    a. National
    b. Multi-state
    c. Statewide (across New York)
    d. Regional (multiple cities or counties within New York)
    e. County
    f. Local (city or town)
    g. Hyperlocal (neighborhood or specific facility)
    h. Other (please specify)

[Skip logic: If regional, county, local, or hyperlocal option is selected, display Q6 in this section, otherwise skip to Q7]

6. **Please provide additional detail on where your organization currently operates.**

7. **Choose the option that best describes your organization and the services it offers:**
    a. Internet service provider (ISP)
    b. Telephone company or cooperative
    c. Cable company
    d. Fiber internet provider
    e. Municipal provider
    f. Electric / utility provider
    g. Wireless internet service provider (WISP) / fixed wireless access provider
    h. Mobile internet provider
    i. Satellite internet provider
    j. Middle-mile provider
    k. Construction company
    l. Internet equipment provider
    m. Data center operator
    n. Cloud services provider
    o. Engineering and design services
    p. Other (please specify)

<u>Section 2: Current Operations/Service Offerings</u>

1. **Does your organization currently serve customers or operate infrastructure within New York State?**
    a. Yes
    b. No

2. **Does your organization participate in the Affordable Connectivity Program (ACP)?**
    a. Yes
    b. No

[Skip logic: If yes, answer Qs 3, 4, 5 in this section. If no, skip to Q6 in this section]

3. **If yes, what is the monthly post-subsidy price of your lowest-price ACP-eligible tier for participating subscribers?**
    a. $0
    b. $1 - $10
    c. $11 - $20
    d. $21 - $30
    e. More than $30

4. **What is the speed of your lowest-price ACP-eligible tier?**
    a. 25/3 Mbps
    b. Up to 50/5 Mbps
    c. Up to 100/20 Mbps
    d. Greater than 100/20 Mbps but less than 100/100 Mbps
    e. 100/100 Mbps or more

5. **How do you advertise or promote your participation in the ACP?**

6. **What strategies has your organization used to deploy broadband in the areas of New York State that are most expensive to serve?**

7. **Please discuss your continuity and disaster recovery plans in the event of a natural disaster or human error, such as a fiber cut, and whether any of your plans target specific geographic areas.**

Section 3: Recruiting, Hiring, Retaining Employees

The purpose of this section is to understand your hiring needs and process to better inform our workforce development ecosystem. We recognize that your company may not have exact information for each, so please provide estimates when possible.

1. **What specific roles do you expect to have a hiring need for in the next three years (either through direct hiring or subcontractors)? Select all that apply below.**
    a. Fiber Technicians
    b. Wireless Technicians
    c. Customer Installation and Maintenance Technicians
    d. Customer Support Representatives
    e. Software Engineers
    f. Network Planners and Designers
    g. Construction Laborers
    h. Construction Equipment Operators
    i. Electricians
    j. Civil Engineers, Surveyors, and Drafters
    k. Structural Engineers
    l. Field Engineers
    m. Other (Please specify)

2. **Which of these roles are the most difficult to hire for and why?**

3. **As New York State invests funding to expand broadband infrastructure and close the digital divide, how does your organization anticipate demand for different roles might change? Please check the box that is most applicable:**

Occupation	Minor Increase	No Increase	Major Increase	N/A
Fiber Technicians				
Wireless Technicians				
Customer Installation and Maintenance Technicians				
Customer Support Representatives				
Software Engineers				
Network Planners and Designers				

Construction Laborers				
Construction Equipment Operators				
Electricians				
Civil Engineers, Surveyors, and Drafters				
Structural Engineers				
Field Engineers				
Other (Please specify)				

4. **What is the biggest gap you anticipate in hiring talent in the future?**
    a. Lack of applicants
    b. Lack of qualified talent
    c. Competitive job market
    d. Lack of interest by applicants (i.e., due to nature of work, compensation)
    e. Other (please specify)

5. **Are there specific roles where you continually find a shortage of labor to be a challenge?**
    a. Yes
    b. No

6. **If yes, what are these roles, and do you know why this challenge exists?**

7. **What recruitment and hiring resources does your organization use to hire technicians, lineworkers, engineers, construction laborers and managers, and similar positions? Select all that apply.**
    a. Internet-based employment posting sites
    b. Workforce development and community job placement centers
    c. Communications industry-specific training classes
    d. Third-party hiring and recruitment firms
    e. Advertisements in trade association publications and websites
    f. Incentivizing employee referrals
    g. Partnerships with academic institutions (4-year colleges, community colleges, etc.)
    h. Partnerships with unions
    i. Other (please specify)

8. **Do you provide any in-house skills training, workforce development, upskilling, or apprenticeship/earn and learn programs for your employees? Select all that apply.**
    a. Advising on curriculum or program design
    b. Providing funding for your program
    c. Hiring talent from your program
    d. Providing career exposure, job shadowing, or on-the-job training opportunities
    e. Upskilling existing workers through your program
    f. Other (please specify)
    g. We do not provide any of these programs

[Skip logic: If a-f, show questions 9 and 10 in this section; if g, skip to question 11]

9. **In addition to any training you provide directly, do you work with any outside organizations to develop and/or hire talent? Select all that apply.**
    a. Standards/certification programs
    b. Training programs through a K-12 school
    c. Training programs through a school of higher education
    d. Trade or vocational programs
    e. Formal apprenticeship and pre-apprenticeship programs
    f. Workforce development organization or community-based organization
    g. Other (please specify)

10. **Are there specific programs that you feel have been successful?**

11. **Do you have any programs or incentives to support racial or gender diversity as it relates to attracting and retaining talent?**

12. **Have you experienced any barriers in meeting MWBE participation goals? If yes, please describe the sub-industries where you have experienced challenges.**

13. **How would you propose to work with New York State on workforce development issues related to broadband deployment, including programs to support diversity among your organization's employees and contractors/suppliers?**

<u>Section 4: Digital Equity</u>

1. **Does your organization any offer other programs, besides Affordable Connectivity Program subsidies, for low-income customers?**
    1. Yes
    2. No

[Skip logic: If a, display Q2 in this section, otherwise skip to Q3]

2. **If yes, please describe your low-income or discounted offerings, including service speeds and monthly pricing.**

3. **Does your organization have programs to support internet adoption, consumer broadband skill, and/or use of the internet?**
    a. Yes
    b. No

[Skip logic: If a, display Q4 in this section, otherwise skip to Q5]

4. **If yes, please describe and provide URL links to relevant materials.**

5. **Please describe how your organization can collaborate with local communities on efforts to close the digital divide and, if applicable, please provide specific examples where you have done this successfully.**

Survey Instrument 3: New York Community Anchor Institution Survey

This survey was shared as a follow-up to participants in CAO's CAI Virtual Forum on June 27, 2023.

Introduction

Community Anchor Institutions play a critical role in facilitating greater use of broadband by unserved and underserved as well as all Covered Populations as defined in the federal Digital Equity Act. Your responses to this brief survey will help New York State's ConnectALL Office (CAO) identify programs to advance residents' opportunities to use broadband to work, learn, receive health care, and participate in civic events. This information will be an important part of New York State's work toward achieving statewide universal access to high-speed broadband with federal funding through the Broadband, Equity, Access, and Deployment (BEAD) and Digital Equity Planning programs.

Section 1: General

1. **Organization Information:**
    a. Organization name
    b. Organization street address
    c. Organization city
    d. Organization zip code
    e. Organization website URL

2. **Is your organization open to being contacted by the ConnectALL Office to discuss your responses to this survey in more detail?**
    a. Yes
    b. No

[Skip logic: If yes, display Q3 in this section, otherwise skip to Q4]

3. **Please provide a point of contact who the ConnectALL Office can follow up with.**
    a. Point of contact name
    b. Point of contact title
    c. Point of contact email

4. **How many employees does your organization have?**
    a. Under 5
    b. 5-24
    c. 25-49
    d. 50-99
    e. 100-499
    f. 500-1500
    g. 1,500+

5. **Where does your organization currently operate?**
    a. National
    b. Multiple states
    c. Statewide (across New York) Regional (multiple cities or counties within New York)
    d. County

e. Local (city or town)
f. Hyperlocal (neighborhood or specific facility)
g. Other (please specify)

[Skip logic: If regional, county, local, or hyperlocal option is selected, display Q6 in this section, otherwise skip to Q7]

6. **Please provide additional detail on where your organization currently operates.**

7. **Please choose the option that best describes your organization and the services it offers:**
   a. Private (For-Profit)
   b. Private (Nonprofit)
   c. Public
   d. Academic
   e. Philanthropic
   f. Press
   g. Other

8. **Please choose the options that best describe your organization and the services it offers. Select all that apply.**
   a. Community-Based Organization
   b. County Government
   c. Digital Equity Coalition
   d. Digital Equity Organization
   e. Faith-Based Organization
   f. Federal Government
   g. Financial Institution
   h. For-Profit Corporation or Business
   i. Foundation/Philanthropic Organization
   j. Health Clinic/Center
   k. Hospital or Other Medical Provider
   l. Housing Organization
   m. Institution of Higher Education
   n. Internet Service Provider
   o. Labor Organization
   p. Library
   q. Local/Municipal Government
   r. Local or Regional Authority/Council
   s. New York State Government Agency
   t. New York State Legislature: Senate
   u. New York State Legislature: Assembly
   v. Nonprofit Organization
   w. P-12 school
   x. Press/Media
   y. Public Safety Entity
   z. Regional Economic Development Council
   aa. Regional Planning Council
   bb. Tribal Government
   cc. United States Congress
   dd. Utility
   ee. Workforce Development Organization

ff. Other Education Organization (not a school)
gg. Other (please specify)

9. **Is your organization located on Tribal Nation land, affiliated with a Tribal Nation or Native entity, or primarily serving Tribal Nation or Native populations?**
    a. Yes
    b. No

Section 2: Programs/Services

1. **Which of the following broadband or digital equity-related services does your organization offer? Select all that apply.**
    a. Support for applicants to broadband subsidy programs, such as the Affordable Connectivity Program (ACP)
    b. Loans or donations of devices (computers, tablets) to access the internet
    c. Hotspots and free or subsidized internet access
    d. Cybersecurity, privacy, or online safety training or resources
    e. Other digital literacy training
    f. Training, equipment, subsidized services, or other resources to facilitate access to telehealth and telemedicine services
    g. Training teachers of broadband skills and digital literacy
    h. Developing and distributing accessible online content or devices designed for use by persons with disabilities
    i. Developing and distributing accessible online content directed at populations with specific needs, such as seniors, low-income residents, people living with disabilities, those with low literacy, and those whose first language is not English
    j. Broadband internet access services at community centers or other gathering spaces used by clients and constituents
    k. Program development and planning of broadband-related services
    l. Advocacy for digital inclusion, affordability, and the broadband-related needs of vulnerable populations
    m. Emergency and disaster relief services such as evacuation centers, charging stations, replacement equipment, and information on grants, loans, and services to those impacted by disasters
    n. Workforce development training (i.e., job training placement, certifications, training programs, apprenticeships, etc.)
    o. Funding of programs that provide any of the above programs, including broadband infrastructure, devices, and subsidies to support affordability
    p. Other (please specify)
    q. My organization does not offer programs that facilitate the use of broadband services

[Skip logic: If option q is selected, skip next question and move on to Section 3]

2. **Which of the following communities or groups does your organization serve? Select all that apply.**
    a. Immigrants/refugees
    b. Incarcerated or formerly incarcerated individuals
    c. Individuals experiencing homelessness
    d. Individuals with disabilities
    e. Individuals with a language barrier including English learners
    f. Individuals with a low level of literacy
    g. LGBTQIA+ individuals

h. Low-income households
i. Members of racial/ethnic minority groups
j. Members of religious minority groups
k. Residents of affordable or public housing
l. Residents of rural areas
m. Seniors 60 and older
n. Veterans or active military personnel
o. Women
p. Youth
q. Other (please specify)
r. Our programming does not target any of these populations

Section 3: Broadband Service Availability, Affordability, and Access

1. **Does your organization provide access to broadband internet service (e.g., public Wi-Fi, computer stations, etc.) to clients, constituents, or visitors at each of your locations?**
   a. Yes
   b. No

2. **Do all of your organization's locations, offices, or community centers have access to broadband internet services at speeds of at least 1 Gigabit per second (Gbps) symmetrical (both upload and download)?**
   a. Yes, all locations
   b. Yes, some locations
   c. No, none of our locations
   d. I don't know

[Skip logic: If "Yes, some locations" or "No, none of our locations", display Qs 3-5, otherwise skip to Q6]

3. **Please provide the addresses of the locations where your organization does NOT have access to at least 1 Gbps symmetrical broadband internet service.**

4. **If your organization does not have access to, or does not purchase, service with symmetrical speeds of at least 1 Gbps, please describe why. Select all that apply.**
   a. Service is unavailable
   b. Service is unreliable
   c. Service is too expensive
   d. Customer service is inadequate
   e. Our operations do not require Gigabit-level services
   f. I do not know if 1 Gbps service is available to my location
   g. Other (please specify)

5. **If your organization could have access to reliable and affordable 1 Gbps broadband service, in what ways might your programming or services change (e.g., could you offer additional services, offer them in a different way, expand the reach of who you serve, etc.)?**

6. **Does your current internet service meet the needs of your organization to deliver broadband internet service and broadband-related programming to your clients and constituents? Select all that apply.**
   a. Yes

b. No, service is too slow
c. No, service is unreliable
d. No, service is too expensive
e. No, customer service is inadequate
f. No, service is too complicated to set up and/or maintain
g. No, redundant connectivity necessary for our operations is too expensive/unavailable
h. Not applicable; we do not provide broadband-related programming
i. Other (please specify)

7. **Do your locations, offices, or community centers currently subscribe to retail (e.g., mass-market plans that are the same as what you could subscribe to at home) or enterprise (e.g., dedicated for business) internet plans?**
   a. Retail
   b. Enterprise
   c. Mixed between our locations
   d. I don't know

8. **Does your entity need any of the following middle mile services? Select all that apply.**
   a. Dark fiber
   b. Lit services
   c. Internet services (IP)
   d. Co-location
   e. None of the Above
   f. I don't know
   g. Other (please specify)

[Skip logic: If e or f selected, skip to Q9, otherwise display next question]

9. **Is it critical to your organization's mission and service delivery to maintain communications with facilities such as hospitals, schools, data centers, and public safety agencies during natural disasters and emergencies?**
   a. Yes
   b. No

[Skip logic: If yes, display next question, otherwise skip to Q11]

10. **Please briefly describe your organization's need to remain connected to critical facilities and whether you believe your organization's current communications services meet this need.**

11. **Has your organization been consulted on disaster planning, emergency communications, or disaster recovery by your communications service provider or a local/regional government agency?**
    a. Yes
    b. No

[Skip logic: If yes, display next question, otherwise skip to Section 4]

12. **Please briefly describe any plans or reports you think would be useful to the State's broadband and emergency communications planning efforts.**

Section 4: Workforce Development

[View section only if Section 2, question 1, option n was selected]

1. **What types of programs do you operate or sponsor? Select all that apply.**
    a. Certification programs
    b. Registered apprenticeships
    c. Unregistered apprenticeships
    d. Pre-apprenticeships
    e. Digital literacy trainings
    f. Job placement and recruitment services
    g. Sponsorships/scholarships for third-party training and classes
    h. Other (please specify)

2. **For what specific occupations and skills are you training?**

3. **Of your graduates, within one year of training, what percentage are hired into a job relevant to their training?**
    a. My organization's program does not directly lead to a job
    b. <25%
    c. 25-50%
    d. 51-75%
    e. 75-90%
    f. >90%
4. **What is the average starting wage for positions that your trainees typically graduate into?**

5. **How do employers currently engage with your programs? Select all that apply.**
    a. Advising on the curriculum or program design
    b. Providing funding for your program
    c. Hiring talent from your program
    d. Providing career exposure, job shadowing, or on-the-job training opportunities
    e. Upskilling existing workers through your program
    f. Other (please specify)

6. **What are the most effective channels you use to recruit talent to participate in your program? Select up to 3.**
    a. In-person events (e.g. open houses, job fairs)
    b. Print marketing
    c. Social media or web marketing
    d. Partnerships with employers and/or an industry intermediary
    e. Partnerships with academic institutions
    f. Partnerships with community-based organizations
    g. Referrals
    h. Partnerships with community-based organizations
    i. Other (please specify)

7. **What wraparound services do you offer for the talent in your program? Select all that apply.**
    a. Career guidance/coaching (i.e., resume building, career development, interview prep)
    b. General coaching, including case management and mentorship
    c. Childcare support

   d. Transportation services and/or ride share
   e. Childcare support
   f. Financial literacy
   g. Mental health support
   h. Tuition/program cost assistance
   i. Stipends to cover non-tuition/program costs
   j. Referrals to organizations for support
   k. Other (please specify)

8. **What are the top barriers your talent faces in being hired and retained? Select up to 3.**
   a. Educational requirements
   b. Job descriptions
   c. Lack of required skills/competencies
   d. Access to contacts in the relevant industry
   e. Unconscious bias
   f. Poor wages
   g. Unsafe work conditions
   h. Need for additional wraparound support
   i. Other (please specify)

9. **What are the top barriers your organization faces to launching and sustaining workforce programs related to telecommunications, construction, or technology? Select up to 3.**
   a. Staff capacity constraints
   b. Inadequate funding to design and launch programming
   c. Inadequate funding to sustain programming / inability of trainees to pay
   d. Lack of skilled or knowledgeable instructors
   e. Lack of space
   f. Unavailability of ready-made curricula, training materials, or credentialing standards
   g. Lack of industry input or partnerships
   h. Lack of labor union input or partnerships
   i. Other (please specify)

10. **Please share any additional detail or context on the challenges you cited in the prior two questions and any solutions you would recommend the State explore.**

<u>Section 5: Assets</u>

1. **Does your organization have access to any physical assets (e.g., rooftops, street furniture, telecommunications infrastructure) that could potentially be leveraged by the State to support broadband deployment?**

2. **Are you aware of other organizations or programs doing great work to support broadband access and digital equity in your community or elsewhere? Please provide details, including website links/contact information if available.**

<u>Section 6: Future</u>

1. **Would your organization offer additional broadband-related services or programs to its constituents or clients if it had additional resources?**
   a. Yes

b. No

[Skip logic: If yes, display Q2, otherwise skip to Q3]

2. **Please describe those additional broadband-related services and the additional resources your organization would need to offer them (e.g., funding, skilled workforce, access to broadband internet services with faster speeds or more capacity).**

3. **Please describe how your organization might envision collaborating with the ConnectALL Office and participating in its efforts to achieve statewide universal access to high-speed broadband.**

Survey Instrument 4: ISP Cybersecurity and Network Resiliency Survey

This survey was shared as a follow-up to participants in CAO's ISP Virtual Forum on September 13, 2023.

Introduction

New York State's ConnectALL Office (CAO) seeks your input on a range of broadband-related issues. Your responses to this brief survey will be an important part of New York State's work toward achieving statewide universal access to high-speed broadband. Specifically, this survey will help CAO better understand the risks and mitigations around climate and cyber threats and structure its programs to best address these issues.

Section 1: General Information

1. **Organization Information**:
    a. Organization name
    b. Organization street address
    c. Organization city
    d. Organization zip
    e. Organization website URL

2. **Is your organization open to being contacted by the ConnectALL Office to discuss your responses to this survey in more detail?**
    a. Yes
    b. No

[Skip logic: If yes, display Q3 in this section, otherwise skip to Q4]

3. **Please provide a point of contact who the ConnectALL Office can follow up with.**
    a. Point of contact name
    b. Point of contact title
    c. Point of contact email

4. **Organization's number of employees**
    a. Under 5
    b. 5-24
    c. 25-49
    d. 50-99
    e. 100-499
    f. 500-1500
    g. 1500+

5. **Scope of operations**
    a. National
    b. Multi-state
    c. Statewide (across New York)
    d. Regional (multiple cities or counties within New York)

e. County
f. Local (city or town)
g. Hyperlocal (neighborhood or specific facility)
h. Other (please specify)

[Skip logic: If regional, county, local, or hyperlocal option is selected, display Q6 in this section, otherwise skip to Q7]

6. **Please provide additional detail on where your organization currently operates.**

7. **Choose the option that best describes your organization and the services it offers:**
    a. Internet service provider (ISP)
    b. Telephone company or cooperative
    c. Cable company
    d. Fiber internet provider
    e. Municipal provider
    f. Electric / utility provider
    g. Wireless internet service provider (WISP) / fixed wireless access provider
    h. Mobile internet provider
    i. Satellite internet provider
    j. Middle-mile provider
    k. Construction company
    l. Internet equipment provider
    m. Data center operator
    n. Cloud services provider
    o. Engineering and design services
    p. Other (please specify)

Section 2: Climate Resiliency

1. **What are the biggest climate threats your company is facing? Select all that apply.**
    a. Increases in temperature cause equipment malfunction, failure, or reduced life span
    b. Weather/climate events result in power outages, affecting broadband service
    c. Flood damage to infrastructure and/or facilities
    d. Ice/snow damage to infrastructure and/or facilities
    e. Storm damage to infrastructure and/or facilities
    f. Weather/climate events pose risks to the health and safety of workers
    g. Lack of precipitation increases risk of fires and/or limits water available for cooling

Appendix 2: Local Coordination Tracker

CAO's Local Coordination Tracker[61] is presented as a separate file.

[61] This appendix follows the NTIA Local Coordination Tracker Tool template (https://broadbandusa.ntia.doc.gov/assistance/local-coordination).

Appendix 3: Tribal Consultation Materials

Materials from CAO's April 2023 Tribal Consultation (agenda and summary notes) are presented as a separate file.

Document Change Log

Version	Date Published	Summary of Changes
1.0	November 6, 2023	Initial publication

1.1	November 10, 2023	• Updated document header
		• Expanded Table of Contents and updated page numbers
		• Fixed typos:
		  ○ Section 4.2.2.1 scoring formula
		  ○ Section 4.11.3 header
		  ○ Section 9.1 header
		  ○ Table 1, Table 2, and Figure 1 titles
		• Fixed hyperlinks and numbering:
		  ○ Tables list
		  ○ Figures list
		• Added hyperlinks for all section and appendix cross-references throughout the document
		• Replaced screenshots of Survey Instruments 2 and 3 in Appendix 1 with text versions

1.2	December 7, 2023	• Updated cover image