

Initial Proposal Volume II Broadband Equity, Access, and Deployment (BEAD) Program

Office of Broadband Access & Expansion
State of New Mexico

DRAFT | November 2023

This document is a draft released for public comment in advance of its submission by OBAE to the National Telecommunications and Information Administration (NTIA).



CONNECT
new mexico

Office of Broadband Access & Expansion

This report was prepared by the State of New Mexico using federal funds under award BEAD 35-20-B296 from the National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of NTIA or the U.S. Department of Commerce.

On the cover: The Albuquerque International Balloon Fiesta

Contents

1. Introduction	1
2. Objectives (Requirement 1)	2
2.1 <i>Vision</i>	2
2.2 <i>Goals and objectives</i>	3
2.2.1 Goals	3
2.2.2 Objectives	4
3. Local, Tribal, and regional broadband planning processes (Requirement 2)	6
4. Local coordination (Requirement 4)	8
4.1 <i>Full geographic coverage</i>	8
4.1.1 Regional broadband meetings	8
4.1.2 Broadband listening sessions	10
4.1.3 Statewide events	10
4.1.4 Connect New Mexico Council meetings	11
4.1.5 ISP engagement	11
4.2 <i>Meaningful engagement and outreach to diverse stakeholder groups</i>	11
4.2.1 Overview	11
4.2.2 Tribal consultation and engagement	14
4.3 <i>Multiple awareness and participation mechanisms</i>	15
4.3.1 Residential phone survey	16
4.3.2 Online engagement	16
4.4 <i>Clear procedures to ensure transparency</i>	16
4.5 <i>Outreach and engagement of unserved and underserved communities</i>	17
5. Deployment subgrantee selection (Requirement 8)	18
5.1 <i>Deployment subgrantee selection process</i>	18
5.1.1 Principles	18
5.1.2 Technical assistance and administrative support	21
5.1.3 Overview of planned subgrantee selection process	21
5.1.4 Phases	25
5.2 <i>Overall timeline</i>	33
5.3 <i>Scoring methodology</i>	34
5.3.1 Prequalification Phase	34
5.3.2 Scoring Phase	38

5.4	<i>Prioritization of unserved BSLs, underserved BSLs, and eligible CAIs</i>	43
5.5	<i>Prioritization of non-deployment projects</i>	44
5.6	<i>Environmental and historic preservation and Build America, Buy America Act compliance</i>	44
5.7	<i>Project area definition</i>	44
5.7.1	Service commitments related to Project Area Unit definition	45
5.8	<i>Approach to subsequent funding rounds if no proposals are received</i>	47
5.9	<i>Projects on Tribal lands</i>	47
5.10	<i>Identifying the Extremely High Cost Per Location Threshold</i>	48
5.11	<i>Utilizing the EHCPLT</i>	48
5.12	<i>Requiring prospective subgrantees to certify their qualifications</i>	49
5.12.1	Officer certifications	50
5.12.2	Letter of credit	50
5.12.3	Financial statements	52
5.12.4	Financial sustainability	53
5.12.5	Managerial capability	54
5.12.6	Technical capabilities	56
5.12.7	Compliance with applicable laws	59
5.12.8	Organizational capability	60
5.12.9	Ownership information	62
5.12.10	Information on other public funding	63
6.	Non-deployment subgrantee selection (Requirement 9)	64
7.	Eligible Entity implementation activities (Requirement 10)	65
8.	Labor standards and protection (Requirement 11)	66
8.1	<i>Specific information that prospective subgrantees will be required to provide in their applications and how the Eligible Entity will weigh that information in its competitive subgrantee selection processes</i>	66
8.2	<i>Binding legal commitments in subgrants related to labor standards and protection</i>	68
9.	Workforce readiness (Requirement 12)	69
9.1	<i>Establishing a baseline for the broadband construction sector in New Mexico</i>	69
9.2	<i>Estimating the impact of BEAD on broadband construction jobs</i>	71
9.2.1	Broadband construction spending will require New Mexico to grow their broadband construction workforce by hundreds of jobs	72
9.2.2	Characteristics of key workforce categories	75
9.2.3	Workforce qualification requirements	76
9.2.4	Current unemployment metrics	78
9.2.5	Current training programs at public institutions in New Mexico	80

9.3	<i>Continuing to support workforce development in New Mexico</i>	84
9.4	<i>Coordination with unions and other workforce stakeholders</i>	86
9.5	<i>Ensuring strong labor standards</i>	88
9.6	<i>Ensuring recruitment of qualified diverse firms</i>	91
9.7	<i>Subgrantee selection process related to workforce considerations</i>	93
9.8	<i>Ensuring long-term economic impact from BEAD deployments</i>	94
9.8.1	Short-term economic impact from initial construction outlay	94
9.8.2	Long-term objectives for enhancing economic growth and job creation	96
9.8.3	Economic development opportunities in New Mexico because of BEAD deployments	98

10. Minority Business Enterprises (MBE) / Women’s Business Enterprises (WBE) / labor surplus area firms inclusion (Requirement 13) 101

10.1	<i>Process, strategy, and data tracking methods to ensure that minority businesses (MBE), women-owned business enterprises (WBEs), and labor surplus area firms (LSAF) are recruited, used, and retained when possible</i>	102
10.1.1	Place qualified small and minority businesses and women’s business enterprises on solicitations lists	102
10.1.2	Assure that small and minority businesses and women’s business enterprises are solicited whenever they are potential sources	102
10.1.3	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	102
10.1.4	Establish delivery schedules, where the requirements permit, which encourage participation by small and minority businesses and women’s business enterprises	103
10.1.5	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	103
10.1.6	Require each subgrantee to take these affirmative steps as they relate to its subcontractors	104
10.2	<i>Certification</i>	104

11. Cost and barrier reduction (Requirement 14) 105

11.1	<i>Promote the use of existing infrastructure</i>	106
11.1.1	Streamline access to State conduits and poles	106
11.1.2	Encourage local communities to leverage their poles and conduits	107
11.1.3	Allow access to limited-access rights-of-way for last-mile broadband providers providing service to unserved and underserved locations	107
11.1.4	Encourage passive infrastructure sharing	107
11.1.5	Create online State-hosted middle-mile database and conduct RFI	108
11.1.6	Explore use of planned middle-mile infrastructure	108
11.2	<i>Promote dig-once policies by providing best practice guide for localities</i>	109
11.3	<i>Streamline permitting processes</i>	110

11.3.1	Optimize local permitting processes	111
11.3.2	Streamline State permitting processes by developing fast-track permit and pre-approved construction methods	112
11.3.3	Shrink federal permitting timelines by partnering with NTIA to discuss a streamlined “shot clock” permit process	112
11.3.4	Ease permitting for already disturbed land	112
11.4	<i>Address construction costs</i>	113
11.5	<i>Address drop costs</i>	113
11.6	<i>Address labor considerations</i>	114
11.7	<i>Reduce overhead costs</i>	114
11.8	<i>Reduce materials costs</i>	115
11.9	<i>Connect local and community banks with participants</i>	115
12.	Climate assessment (Requirement 15)	116
12.1	<i>Identifying geographic areas subject to initial hazard screening</i>	117
12.2	<i>Characterizing which weather and climate hazards may be most important to account for and respond to these in areas and over time</i>	119
12.2.1	Inland flooding	119
12.2.2	High winds	122
12.2.3	Tornadoes	124
12.2.4	Hail	126
12.2.5	Lightning	128
12.2.6	Winter storms	130
12.2.7	Cold waves	133
12.2.8	Wildfires	135
12.2.9	Landslides	137
12.2.10	Drought	139
12.3	<i>Characterizing weather and climate risks to new infrastructure deployed using BEAD program fund for the next 20 years</i>	139
12.4	<i>Strategies for mitigating climate risks</i>	140
12.4.1	Hazard mitigation for anticipated BEAD-funded projects in New Mexico	140
12.4.2	Adopted risk mitigation processes	141
12.5	<i>Processes to ensure that evolving risks are continuously understood, characterized, and addressed</i>	142
13.	Low-cost broadband service option (Requirement 16)	147
14.	Middle-class affordability plans	152
15.	Use of funding (Requirement 17)	156
15.1	<i>Planned use of funds requested</i>	156

15.2	<i>Amount of Initial Proposal funding request</i>	156
15.3	<i>Certification</i>	156
16.	Eligible Entity regulatory approach (Requirement 18)	157
17.	Certification of compliance with BEAD requirements (Requirement 19)	158
17.1	<i>Certification of compliance</i>	158
17.2	<i>Subgrantee accountability procedures</i>	158
17.2.1	Overview	158
17.2.2	Risk-based monitoring	158
17.2.3	Fraud, waste, and abuse	159
17.2.4	Distribution of funds on a reimbursement basis	159
17.2.5	Clawback provisions	159
17.2.6	Timely reporting requirements	160
17.2.7	Robust subgrantee monitoring	160
17.3	<i>Certification of nondiscrimination and civil rights</i>	160
17.4	<i>Certification of cybersecurity and supply chain risk management</i>	161
Appendix A:	Local coordination tracker tool	163
Appendix B:	Contributors on workforce readiness	164
Appendix C:	Organized sequence of subgrantee selection process	176
Appendix D:	Proposed scoring rubric	183

Figures

Figure 1: OBAE regional broadband meetings.....	9
Figure 2: Thirty-minute drive time around New Mexico institutions training roles relevant to fieldwork during broadband construction	83
Figure 3: Composite hazard risk scores in New Mexico	118
Figure 4: Risk of inland flooding in New Mexico.....	121
Figure 5: Risks from strong winds in New Mexico	123
Figure 6: Risks from tornadoes in New Mexico	125
Figure 7: Risks from hail in New Mexico	127
Figure 8: Risks from lightning in New Mexico	129
Figure 9: Risks from ice storms in New Mexico	131
Figure 10: Risk of winter weather in New Mexico	132
Figure 11: Risks from cold waves in New Mexico	134
Figure 12: Risks from wildfires in New Mexico.....	136
Figure 13: Risks from landslides in New Mexico.....	138
Figure 14: Monthly cost of home internet service by household income.....	154
Figure 15: Amount willing to pay for high-speed, reliable home internet service by household income	154

Tables

Table 1: Scoring criteria for Priority Broadband Projects	42
Table 2: Scoring criteria for other last-mile broadband deployment projects	43
Table 3: Performance of New Mexico’s broadband deployment sector (2018 to 2022)	70
Table 4: Anticipated distribution of broadband investment across sectors	72
Table 5: Estimated workforce requirements for broadband deployment occupations	73
Table 6: Occupations needed for broadband deployment (by percentage increase required)	74
Table 7: Characteristics of key occupations impacted by broadband investment.....	75
Table 8: Work experience of occupations impacted by broadband investment	76
Table 9: Unemployment for occupations impacted by broadband investment	78
Table 10: Occupations impacted by broadband investment, job postings vs. hires (2022)	79
Table 11: Broadband workforce training programs at public higher education institutions.....	81
Table 12: U.S. labor laws noted in the BEAD NOFO	88
Table 13: Estimated economic effects of investing \$810 million in broadband construction	95
Table 14: Estimated economic effects of investing \$951 million in broadband construction	95
Table 15: Estimated rate at which households adopt broadband.....	98
Table 16: Threats to infrastructure posed by weather and climate risks.....	139
Table 17: BEAD allocation proportions for expense categories	156
Table 18: Summary of subgrantee selection process documents and milestones	176

1. Introduction

The Office of Broadband Access and Expansion (OBAE),¹ the Eligible Entity for the State of New Mexico, is pleased to present this Broadband Equity, Access, and Deployment (BEAD) Program Initial Proposal Volume II. The State reserves the right to update this Initial Proposal pending revised or additional guidance from NTIA.

¹ OBAE is administratively attached to the New Mexico Department of Information Technology (NM DoIT) for budget and expenditure oversight.

2. Objectives (Requirement 1)

2.1 Vision

The State of New Mexico’s vision, as set forth in the Office of Broadband Access and Expansion’s (OBAE) Three-Year Broadband Plan (2023), is to “achieve bold, affordable broadband solutions for New Mexicans that honor the State’s rich heritage and elevate quality of life for all.” To carry out this vision, the Office has established a mission of “passionate leadership to drive bold, equitable, and inclusive broadband solutions.”²

The criticality of broadband to the life of New Mexicans has never been more apparent. Even before the Covid-19 pandemic, broadband internet access had become foundational to economic activity, political and civic engagement, job creation, education, health care, and delivery of public services.³

The State of New Mexico recognized this urgency and has taken steps to improve broadband in all areas of the State; to support and facilitate private-sector investment in broadband; to ensure that schools and public safety facilities have access to robust broadband services; and to lay the groundwork for solving New Mexico’s rural broadband challenges comprehensively over time.⁴

The Connect New Mexico Act and Broadband Access and Expansion Act⁵ reflect the State’s goal of universal broadband and digital equity. The Act defines “digital equity” as “information technology needed for civic and cultural participation, employment, education, business and economic development, lifelong learning and access to essential services generally available to residents regardless of their racial grouping, socioeconomic status or cultural identity.” It defines “digital inclusion” as “access to and the ability to use information technologies.”

As described in more detail below, the goal of this Initial Proposal is to deliver affordable, reliable, high-speed broadband—and the opportunities that broadband provides—to all residents of New Mexico.

² “State of New Mexico Three-Year Broadband Plan,” OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>.

³ “State of New Mexico Broadband Strategic Plan and Rural Broadband Assessment,” NM DoIT, June 2020, https://www.doit.nm.gov/wp-content/uploads/sites/4/2022/03/nmbbp_strategic20200616Rev2Final.pdf, p.8.

⁴ *Id.*

⁵ “Connect New Mexico Act,” <https://nmlegis.gov/Sessions/21%20Regular/final/HB0010.pdf>, Section 2 and <https://casetext.com/statute/new-mexico-statutes-1978/chapter-63-railroads-and-communications/article-9k-connect-new-mexico>; “Broadband Access and Expansion Act,” <https://www.nmlegis.gov/Sessions/22%20Regular/bills/house/HB0120.HTML> and <https://casetext.com/statute/new-mexico-statutes-1978/chapter-63-railroads-and-communications/article-9j-broadband-access-and-expansion/section-63-9j-2-definitions>.

This Initial Proposal provides a roadmap regarding the State of New Mexico’s strategy to reduce or eliminate the digital divide, with a sequence of specific activities supported by funding from the BEAD program as well as other sources including New Mexico’s own funding.

2.2 Goals and objectives

2.2.1 Goals

OBAE’s Three-Year Broadband Plan (2023) set primary goals for broadband in the State, including the following.⁶ (The first, second, and fourth goals are the focus of the BEAD Five-Year Action Plan; the third goal is complementary.)

1. **Universal availability of terrestrial-based, high-speed, scalable broadband networks:**

New Mexican residents and businesses should have access to terrestrial-based high-speed broadband networks that reliably deliver at least 100/20 Mbps (download/upload) by 2029—the period when planned grant-funded broadband networks should be deployed. This speed constitutes the current federal definition of “served.”

All terrestrial networks funded by the State’s grant programs should offer at least 100/100 Mbps unless the applicant can demonstrate extraordinary circumstances limiting this speed. In such cases, the networks must offer 100/20 Mbps and be scalable to at least 100/100 Mbps.

To meet the 100/100 Mbps standard, New Mexico aims to prioritize fiber-based networks, given their distinct advantages of being sustainable and “future ready” with relatively lower operating and upgrade expenditures. For those highly remote communities where terrestrial networks cannot be deployed due to extraordinarily high costs or technical barriers, the State will consider initiatives to foster non-terrestrial solutions.

2. **Widespread adoption and meaningful use of the internet:** All New Mexicans should have the opportunity to adopt the internet. This can occur at home, an office, a community institution, or through a mobile device. All New Mexicans should be offered the support to overcome adoption challenges—which may include programs to enable affordability, obtain devices, receive digital literacy training, or have high-quality access at a nearby community institution.

Secondly, all New Mexican broadband adopters should meaningfully use the internet’s myriad of valuable digital applications to advance their social and economic standing (e.g.,

⁶ “State of New Mexico Three-Year Broadband Plan,” OBAE, January 1, 2023, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>.

health, education, workforce, civic and social services). The quality and innovation of online resources increase every year, thereby yielding valuable tools for both residents (e.g., e-learning, telehealth, workforce skills development) and businesses (e.g., online marketplaces, cloud-hosted applications performing real-time functionality).

3. **Advancement of next-generation statewide networks:** New Mexico’s ambition of being the most connected State necessitates several other broadband deployment investments beyond the BEAD Five-Year Action Plan, including:
 - a. A Statewide Education Network (SEN) that connects all interested public schools and public libraries together through scalable, reliable, affordable, and secure internet, and a complementary initiative, the Pueblo Education Network (PEN), which is focused on Tribal schools and libraries;
 - b. Geographically comprehensive open-access middle-mile networks that offer reasonably priced, high-speed lit services and dark fiber to facilitate backhaul and support private links for government, large enterprises, data centers, educational institutions, and others requiring at least 1 Gbps connectivity;
 - c. Universal mobile 5G coverage that spans across all rural communities and highly trafficked roadways; and
 - d. Network architectures that offer resiliency, redundancy, and security.
4. **Program stewardship:** Attaining universal broadband availability, widespread adoption, and meaningful usage, along with complementary statewide next-generation networks, will constitute a generational achievement involving significant public investment and time. The public expects accountability from both the government agencies issuing the funds and the awardees (grantees) receiving the funds.

Thus, OBAE recognizes the immense value of program stewardship. OBAE leadership and staff are committed to the utmost transparency and accountability of its programs. Moreover, OBAE will actively monitor our awardees and hold them accountable for all programmatic and compliance requirements.

Collectively, the State’s goals encompass an interconnected network system that provides widespread connectivity, resiliency and redundancy, safety and security, and customer choice through public-private collaboration.

2.2.2 Objectives

In support of these goals, the State has set the following objectives:

Goal 1: Universal broadband availability

- *Objective 1:* Provide grant funding to enable broadband deployment.
- *Objective 2:* Ensure robust data for spatial data management and analytics to maintain current and accurate broadband maps.
- *Objective 3:* Remove deployment barriers related to permits, rights-of-way, and pole attachments (PROP).
- *Objective 4:* Implement a workforce development strategy to support a large, highly skilled broadband workforce across the State.
- *Objective 5:* Provide technical assistance programs to empower local communities to effectively participate in grant-funding programs.

Goal 2: Broadband adoption and meaningful usage

- *Objective 1:* Achieve 2023 programmatic requirements for the NTIA-administered Digital Equity Program.
- *Objective 2:* Support broadband affordability by maximizing participation in the FCC Affordable Connectivity Program (ACP).
- *Objective 3:* Foster digital equity and inclusion within Tribal communities.

Goal 3: Next-generation statewide networks

- *Objective 1:* Launch the SEN and support middle-mile expansion through public-private collaboration.
- *Objective 2:* Expand coverage of mobile broadband and public safety networks.
- *Objective 3:* Ensure statewide network resiliency and security.

Goal 4: Program stewardship

- *Objective 1:* Ensure transparency and accountability for OBAE regarding programs, initiatives, and results.
- *Objective 2:* Foster accountability for grantees regarding all programmatic and compliance requirements.

3. Local, Tribal, and regional broadband planning processes (Requirement 2)

This section describes the comprehensive, multi-faceted engagement process conducted by the New Mexico Office of Broadband Access & Expansion (OBAE) in preparation of the BEAD Five-Year Action Plan in support of this Initial Proposal. The stakeholder engagement effort, comprising statewide meetings and surveys with a complete range of stakeholders, demonstrated collaboration with local and regional entities (governmental and non-governmental), including Pueblos, Tribes, and Nations. It reflects OBAE’s effort to facilitate an inclusive and effective engagement model. The stakeholder engagement process also included the covered populations⁷ that have been identified as core stakeholder groups.

To achieve OBAE’s vision of delivering equitable and inclusive broadband solutions, OBAE has established strong collaborative relationships with private and public organizations, as well as local and State agencies. Through the Connect New Mexico Council and various Working Groups, OBAE regularly coordinates with a diverse group of stakeholders. In addition, OBAE provides continuous stakeholder outreach through its New Mexico Tribal Broadband Newsletter and New Mexico Broadband Connection Newsletter.

To inform this Initial Proposal, OBAE has conducted extensive and lengthy consultation with its Tribal partners—who have shared priorities, insights, and experiences to help inform OBAE’s work and the State of New Mexico’s knowledge of digital needs among the Nations, Pueblos, and Tribes.

OBAE utilized these established relationships to design and implement an inclusive engagement process to offer stakeholders and the public multiple opportunities to provide feedback and participate in the planning process.

Engagements included email outreach to stakeholders, statewide meetings, public meetings, stakeholder meetings, stakeholder surveys, and a resident phone survey (which is completed with analysis presented in the State’s forthcoming Digital Equity Plan). OBAE made strategic efforts to reach out to and engage with defined

⁷ Per NOFO Section I.C.g, referencing IJJA Section 60302(8), the covered populations are:

1. Individuals who live in covered households;
2. Aging individuals;
3. Incarcerated individuals, other than individuals who are incarcerated in a Federal correctional facility;
4. Veterans;
5. Individuals with disabilities;
6. Individuals with a language barrier, including individuals who—
 - a. Are English learners; and
 - b. Have low levels of literacy;
7. Individuals who are members of a racial or ethnic minority group; and
8. Individuals who primarily reside in a rural area.

covered populations who historically may have not had as much representation in the public planning process.

Tribal consultation, involvement, and support is critical to the success of statewide broadband initiatives, and it is an ongoing priority for OBAE to engage Tribal leaders and representatives through its outreach.

OBAE conducted more than 150 stakeholder engagement sessions in 2022⁸—including nine engagements with 23 Pueblos, Tribes, and Nations (or 100 percent of the federally recognized Tribal nations in New Mexico)—followed by more than 200 stakeholder engagement sessions in 2023, including one-on-one meetings with 22 of 23 Pueblos, Tribes, and Nations in NTIA-recognized federal consultations. OBAE continues to facilitate a schedule of ongoing engagement efforts that will inform this Initial Proposal and future BEAD and Digital Equity activities.

⁸ “New Mexico Broadband Plan Update,” OBAE, January 1, 2023, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>. p.115-122.

4. Local coordination (Requirement 4)

This section describes how OBAE has coordinated and will continue to coordinate with all communities within its jurisdiction, including its marginalized and underrepresented populations.

The Local Coordination Tracker Tool is attached as Appendix A.

4.1 Full geographic coverage

OBAE purposefully designed its public and stakeholder engagements to cover the full geographic range of New Mexico.

4.1.1 Regional broadband meetings

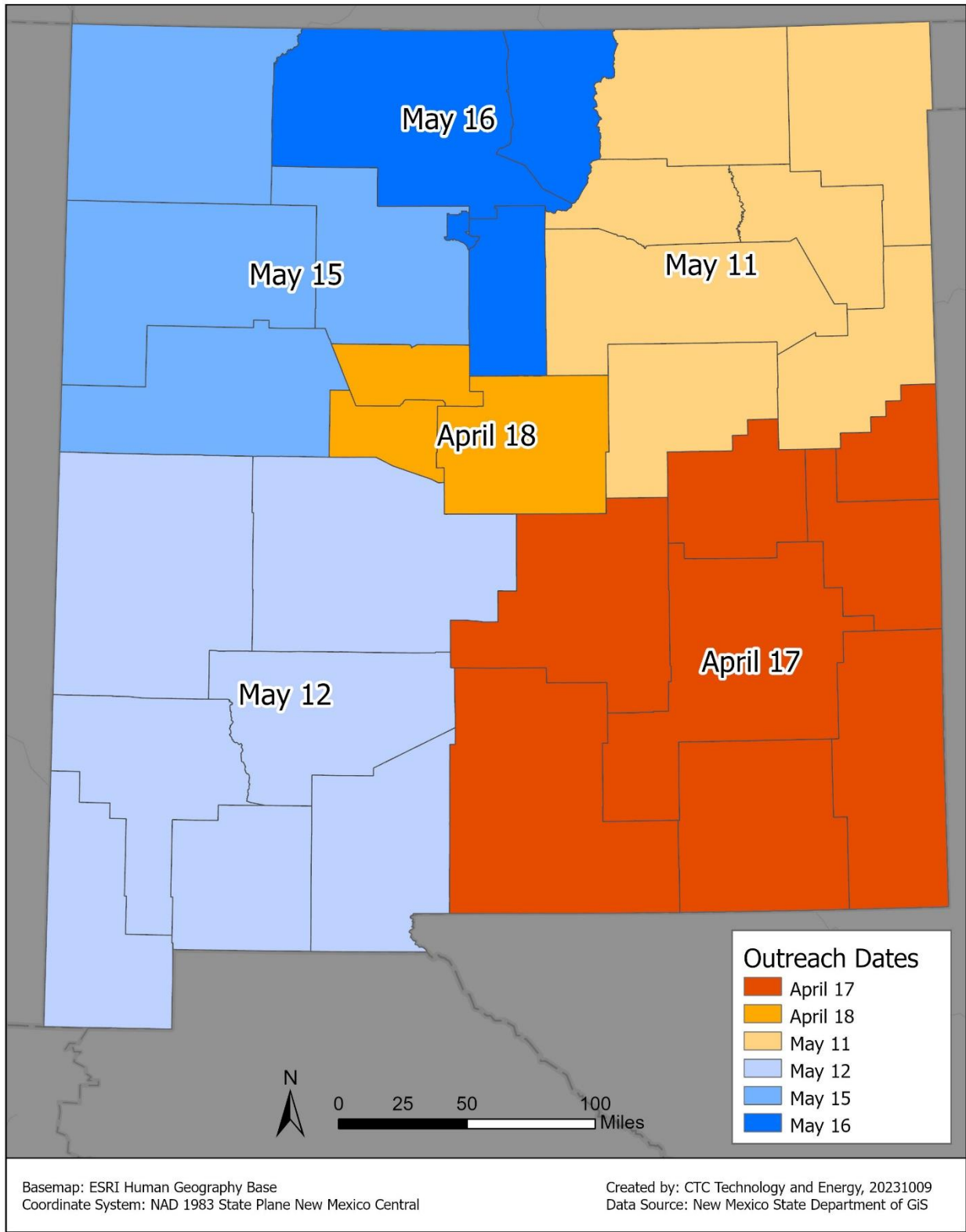
OBAE hosted six Regional Broadband Meetings in accordance with the six New Mexico Economic Development Department (EDD) “Community, Business, and Rural Development” (CBRD) regions. Each Regional Broadband Meeting included State and local officials, multiple mechanisms of participation, and opportunities to learn about broadband initiatives and funding opportunities. The Broadband Regional Meeting provided information on BEAD and Digital Equity planning (including timelines and process details), data mapping, funding opportunities along with community roundtables, and open hours with OBAE staff.

In one of OBAE’s regional outreach sessions, residents of southwest New Mexico reported that high poverty in the region prevents some households from subscribing to available service. Attendees included individuals from Doña Ana, Catron, Grant, Hidalgo, Luna, Sierra, and Socorro counties.

Regional Broadband Meetings were held at the following times and locations:

- Southeast Region 6 (Counties of Otero, Lea, Lincoln, DeBaca, Chaves, Eddy, Roosevelt, and Curry): April 17, 2023, at Otero County Fairgrounds
- Central Region 3 (Counties of Valencia, Bernalillo, Torrance): April 18, 2023, at the University of New Mexico-Valencia Campus
- Northeast Region 4 (Counties of Colfax, Union, Mora, Harding, San Miguel, Quay, Guadalupe): May 11, 2023, at Luna Community College, Springer Campus
- Southwest Region 5 (Counties of Doña Ana, Catron, Socorro, Sierra, Grant, Luna, Hidalgo): May 12, 2023, at Doña Ana County Government Center
- Northwest Region 1 (Counties of Sandoval, San Juan, McKinley, Cibola): May 15, 2023, at Farmington Municipal Schools
- North Central Region 2 (Counties of Rio Arriba, Los Alamos, Santa Fe, Taos): May 16, 2023, at Hernandez Community Center

Figure 1: OBAE regional broadband meetings



4.1.2 Broadband listening sessions

OBAE also hosted online Broadband Listening Sessions for the stakeholder groups identified in the BEAD NOFO. These Broadband Listening Sessions included customized overviews of broadband history and technologies (“Broadband 101”), funding and programmatic overviews, considerations for each stakeholder group, and ways to get involved in the next steps of the planning process. By hosting the events online, OBAE enabled participants around the State to attend and provide critical feedback.

Broadband Listening Sessions were held on the following dates in 2023:

- Local and Regional Governments: May 8, May 10
- Community Anchor Institutions: May 19
- Health Centers, Health Alliance: May 19
- Digital Equity/Covered Populations: May 22, May 26
- Workforce Development: May 30, May 31
- Internet Service Providers (ISP): June 5, June 8
- Tribal Government and Agencies: June 9
- Business and Economic Development: June 12, June 14
- Human Services Department: June 22

Attendees in the Regional Broadband Meetings and Broadband Listening Sessions were asked to answer brief survey questions through an online poll about their experience accessing broadband and the digital equity needs of their organization, constituents, and the State to guide broadband infrastructure expansion and digital equity planning. The surveys were also available publicly online.

“We hear about funding sources, but it hits a wall when people who don’t know enough need to fill out forms to access funding.”

- Input from an attendee at OBAE’s listening session for Community Anchor Institutions, highlighting a barrier in accessing currently available funding

4.1.3 Statewide events

To ensure the entirety of the State had the opportunity to engage with the planning efforts, OBAE also hosted two statewide events. The New Mexico Broadband Day at the Roundhouse (“Day”), held on February 15, 2023, included the Connect New Mexico Council Meeting,

topic working groups, opportunities to speak with public and elected officials, and information tables hosted by public, private, State, and local entities.

Additionally, OBAE hosted the Internet for All New Mexico Broadband Summit and Tribal Roundtable (“Summit”) on May 24th, 2023. The Summit accommodated both in-person and virtual attendance. The statewide Summit aimed to allow the public to learn about broadband initiatives and funding opportunities, share their experiences, and participate in the development of this Plan. Slide decks from the multiple presentations were posted publicly online.

4.1.4 Connect New Mexico Council meetings

In addition to the Regional Broadband Meetings and statewide events, OBAE hosts ongoing Connect New Mexico Council meetings. These meetings are hosted online to maximize engagement throughout the State by removing geographic attendance barriers. OBAE also hosts focused Council working groups in the following areas: the Connect New Mexico Grant Program; Digital Equity and Inclusion; Mapping, Data, and Evaluation; Regional Planning and Community Engagement; Tribal Working Group; and Permits, Pole Attachments, and Right-of-Way.

4.1.5 ISP engagement

OBAE is actively conducting one-on-one engagements with ISPs as well. These virtual sessions help develop a dialogue between OBAE and the ISPs for OBAE to better understand deployment plans, barriers to deployment, affordability programs, and gauge interest in potential partnerships.

4.2 Meaningful engagement and outreach to diverse stakeholder groups

4.2.1 Overview

OBAE utilized in-person regional engagements, stakeholder listening sessions, a phone survey, social media notifications, and flyers to reach out to a wide range of diverse stakeholders. Stakeholder groups included all covered populations as defined in the Digital Equity NOFO and all underrepresented populations and stakeholder groups identified in the BEAD NOFO.

While outreach is still ongoing, summaries of the engagement are listed below.

Several strategies were implemented in each stage of planning to ensure meaningful outreach and engagement of a diverse stakeholder group.

- OBAE facilitates the coordination of broadband meetings and community events throughout the State through its Calendar. The Calendar includes a diverse range of events and interests, including New Mexico Technology Council Peer Groups such as the New Mexico Technology Council Digital Inclusion Peer Group, which offers valuable networking, educational, workforce, and business development opportunities and a

platform to tackle topics such as how to expand access to technology and education, how to best serve differently abled individuals with technology, and more.

- OBAE will begin hosting Lunch and Learn Webinars in fall 2023. Attendees will be able to learn about best practices, State projects, and topics related to broadband and digital equity.
- OBAE hosts the Connect New Mexico Council which meets on the third Wednesday of every month. In addition to engaging community leaders and stakeholders by providing a platform to discuss broadband access and digital equity, the Connect New Mexico Council includes working groups that specifically focus on digital equity and inclusion, including a Tribal Working Group.
- OBAE considered participants' broadband knowledge and familiarity during each engagement. To best enable stakeholders to provide informed insights into the planning process, OBAE provided customized overviews of broadband history, technology, and use ("Broadband 101"). OBAE also reviewed the major broadband initiatives and funding opportunities available for stakeholders and their constituents for both infrastructure and digital equity.
- OBAE developed and distributed printed and digital promotional materials, including flyers, in English and Spanish to ensure that New Mexico residents that speak either language can participate in the planning process.
- OBAE distributed online surveys and obtained data to better understand:
 - The obstacles to broadband access faced by vulnerable populations
 - The programs that exist to provide community members with the skills and tools to participate in broadband-related opportunities
 - The appetite for developing broadband-related programs to benefit community members
 - The opportunities provided by community anchor institutions to improve their constituents' digital knowledge and familiarity
 - Infrastructure-related assets that exist in the State
 - Workforce development, training opportunities, recruiting, and hiring in broadband-related fields
 - Development and collaborative community strategies already in place by ISPs

- When engaging the public through the residential phone survey, OBAE utilized sampling strategies to enable the State to collect meaningful data on defined covered populations. OBAE collected fewer responses from lower-income, younger, and racial and ethnic minorities, so analysis will be performed to correct for any potential bias based on household income, age, and race or ethnicity.
- OBAE hosted two statewide engagements (New Mexico Broadband Day at the Roundhouse and the Internet for All New Mexico Broadband Summit and Tribal Roundtable), offering the public a unique opportunity to provide direct feedback to State officials.
- OBAE has engaged a Tribal Liaison consultant who is supporting stakeholder engagement events and the Connect New Mexico Council Tribal Working Group, as well as additional outreach by OBAE such as Pueblo mapping work sessions, ongoing direct Tribal community visits and leadership meetings, and development of a comprehensive Tribal contact database and regular Tribal Broadband newsletter.⁹
- OBAE is in active dialogue with ISPs through one-on-one engagements to better understand deployment plans, barriers to deployment, affordability programs, and interest in potential partnership.

OBAE also attends, advertises, and supports various broadband-related efforts throughout the State. When engaging stakeholders or the public, OBAE took particular care to facilitate inclusive and diverse conversation and collaboration through the events it hosts and the content it broadcasts.

⁹ "Tribal Broadband," OBAE, <https://connect.nm.gov/tribal-broadband.html>.

4.2.2 Tribal consultation and engagement

OBAE is also actively participating in one-on-one Tribal consultation meetings to better understand broadband barriers and needs in Tribal communities. As of November 9, 2023, OBAE had completed 22 of 23 scheduled Tribal consultation meetings, with the final meeting scheduled for the following week. The meetings aim to gather community input regarding digital equity programs, workforce development, and unique issues the community may face. Outputs from the meetings have helped reveal priorities from the Tribal community and alert OBAE to potential avenues for future programming.

Tribal consultation, engagement, support, and investment are priorities and are essential to the overall success of the statewide broadband initiatives. OBAE has invested in a Tribal Engagement consultant who is supporting the CNMC Tribal Working Group, Tribal meetings, Tribal Convenings, Pueblo mapping work sessions, and direct Tribal community visits and leadership meetings, as well as development of a comprehensive Tribal contact database and a regular Tribal Broadband newsletter.

The first Tribal Convening was held on September 12, 2022, with 72 participants. The next Tribal Convening was held on September 21, 2023. The Tribal Working Group meets every two weeks and is chaired by Godfrey Enjady (Mescalero Apache Telecom).

OBAE has regular ongoing, weekly contact with Tribal leaders, Tribal IT/broadband staff, and Tribal consultants in areas of technical assistance, project management, grant writing, training, and general educational sharing. OBAE participates in weekly meetings with Navajo Nation representatives and with the NM Indian Affairs Department. OBAE regularly presents at the monthly Broadband Initiative on Navajo Nation meetings and Connect New Mexico Tribal Working Group meetings (TWG).

In addition, OBAE hosted a data webinar, a digital equity webinar, and two hands-on mapping workshops for Tribal members. OBAE is also participating in meetings to better understand and support development of the Pueblo Education Network, (PEN) a native-led initiative to link Pueblos and Tribal schools and build an educational middle mile, 15 electronic Tribal newsletters have been published since November 2022 reaching more than 300 subscribers with each distribution.

“Tribal communities are struggling with workforce development and want assistance with developing hiring practices.”

- A representative the Pueblo of Sandia highlights a need in the community to prepare for broadband deployment during an OBAE outreach session

“[Residents] may have to drive miles to get cell service to attend a training via their cell phone or drive to borrow the public Wi-Fi at a business.” For individuals without reliable access to transportation and individuals with disabilities or limited mobility, this can prevent a further barrier to accessing services online.

- A representative of an organization that works with individuals on the Navajo Nation who participated in an OBAE outreach session

Additionally, OBAE has presented at the New Mexico Indian Affairs Department’s State Tribal Leaders Summit, the All Pueblo Council of Governors, Ten Southern Pueblos Council, and the Eight Northern Indian Pueblos Council. OBAE has also presented at the National Tribal Telecommunications Association Conference. OBAE also collaborated with NTIA to host a Tribal Roundtable at the May 24, 2023, statewide meeting.

Twenty-two Tribes in New Mexico applied to NTIA for Tribal Digital Equity Planning grants; funding has yet to be announced. New Mexico is required to address the needs and challenges of Tribal communities in the State Digital Equity Plan. OBAE is in the process of scheduling official government to government Tribal consultation. Leading up to

scheduling Tribal consultation a letter was sent to all Tribal leaders in New Mexico requesting consultation.

There is extensive ongoing learning with Tribes that needs further development and distilling; this initial engagement marks the beginning of substantial work that must be done to ensure digital equity for the Tribal nations of New Mexico.

4.3 Multiple awareness and participation mechanisms

OBAE conducted multiple in-person and virtual meetings that ranged from multi-organizational to focused working groups on a regional and statewide scale.

OBAE maintains a robust contact list of every person who was invited or attended any of the Listening Sessions and Regional Broadband Meetings and provided contact information. OBAE also maintains an email list for individuals interested in broadband meetings and community events occurring throughout the State who wish to receive updates and invites.

Invites to the Regional Broadband Meetings, Stakeholder Listening Sessions, and statewide meetings were sent through OBAE’s comprehensive contact list. In addition to email invites, OBAE conducts outreach through social media, printed and digital flyers in both English and Spanish, press releases, and through coordination with partner agencies.

Stakeholders were also able to provide feedback on OBAE’s website through publicly available stakeholder surveys. Links to the survey were also provided during Regional Broadband Meetings

and Stakeholder Listening Sessions. Public engagement was also conducted through a phone survey of adult New Mexico residents utilizing phone records obtained through a commercially available list of phone numbers.

4.3.1 Residential phone survey

OBAE also engaged the public through a residential phone survey. The survey gathered approximately 2,400 responses from adult New Mexico residents; the phone records were sourced through a commercially available dataset and respondents were surveyed about broadband availability, devices, digital skills, and their broadband needs. Data obtained from this survey will be weighted based on household income, age, and race or ethnicity to correct for potential bias since lower-income and younger residents, as well as racial and ethnic minorities, were less likely to respond. Analysis in this manner helps produce results that more closely reflect the opinion of the State's adult population. The results of the phone survey will be presented in the State's forthcoming Digital Equity Plan.

4.3.2 Online engagement

OBAE further facilitated statewide community involvement through its website. OBAE's website serves as a repository for all broadband-related events occurring throughout the State, enabling visitors to access information about State and local involvement and to advertise their own meetings or events. Site visitors are also able to sign up to attend or receive updates from the Connect New Mexico Council Working Groups. Site visitors can fill out any of the surveys that OBAE designed to capture data from government agencies, community organizations, community stakeholders, and employers about their broadband needs and experiences accessing broadband. Additional resources on affordability, grant funding, mapping, and broadband educational tools are also available on the site.

4.4 Clear procedures to ensure transparency

OBAE took proactive steps to ensure compliance with all applicable laws and best practices to establish and maintain clear procedures to ensure transparency.

All in-person and virtual meetings were advertised publicly on OBAE's online calendar. OBAE's Events Calendar is consistently updated with new and reoccurring events. The website also contains accessible broadband resources and ways that the public and stakeholders can get involved in digital equity and connectivity efforts. The OBAE website also hosted the publicly available stakeholder surveys. The surveys allowed respondents to choose which questions to answer, allowing individuals to control the level of personal information shared.

Participants in virtual meetings were able to attend anonymously. Closed-caption transcripts of meetings were available in real time to enable engagement from some participants with differing

abilities. The slide decks used during meetings were posted to the OBAE website to facilitate feedback and transparency.

Although contact information was not required to attend any of the meetings, the intent to collect contact information to include participants in future stakeholder outreach was clearly communicated during meetings. Contact information was collected from surveys, meeting chats, and Q&A sessions.

4.5 Outreach and engagement of unserved and underserved communities

OBAE proactively reached out to and engaged with representatives and organizations that serve underrepresented and underserved communities and defined covered populations.

OBAE continuously updates its contact list by integrating contacts obtained through stakeholder outreach to ensure outreach is comprehensive and inclusive.

OBAE also established procedures to increase the accessibility of meetings, materials, and information. The stakeholder listening sessions were accompanied by live closed captioning to enable engagement from some participants with differing abilities. The slide decks were also available publicly on OBAE's website. Flyers advertising meetings were published in both English and Spanish.

OBAE hosted all in-person events at public locations that were familiar community spaces or community anchor institutions that serve as resource hubs for underrepresented and underserved communities. OBAE aims to meet community organizations and their constituents "where they are" by hosting meetings at locations already used as community resources. The joint work completed by the community anchor institutions and OBAE demonstrates the strong relationship that OBAE has fostered with community organizations and institutions as part of the planning engagement process.

To better understand the barriers and obstacles to broadband access faced by covered populations, OBAE designed a survey to collect meaningful insights into how it can best serve these populations.

5. Deployment subgrantee selection (Requirement 8)

This section of Volume II describes how OBAE proposes to structure, design, and implement its grant program to award BEAD funds to subgrantees to deploy broadband infrastructure in New Mexico. This section includes discussion of the structure of the program, the timeline, the scoring, and steps OBAE will take to try to maximize the reach and impact of the BEAD funds throughout New Mexico. See Appendix C: Organized sequence of subgrantee selection process for a chart summarizing the subgrantee selection process described in this section, including the documentation, milestones, and phases required in the process.

OBAE 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 OBAE 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, OBAE also recognizes that this grant program, like any such program, will not have guaranteed outcomes. For example, given the challenging economics of broadband deployment, some project areas may not attract any applicants, or may attract only one applicant. Further, the BEAD program breaks new ground in that no entity, state or federal, has ever been required to design a program that would address the needs of 100 percent of eligible locations. OBAE therefore reserves the opportunity to negotiate with applicants as needed, so long as it meets the BEAD requirements.

5.1 Deployment subgrantee selection process

The subgrantee selection process described below is designed to be fair and to avoid arbitrary decisions. It does this through detailed description of selection rules and procedures, discussion of application of fair and consistent rules to all applicants, and to the extent possible, definition of quantitative scoring methods that minimizes subjective judgement in grant decisions. The process and rules proposed below include such protections as requirements that selection officers will certify that they do not have conflicts of interest and that they will apply grant rules fairly and without bias. New Mexico intends to issue subgrants as fixed subawards, consistent with NTIA's BEAD guidance and its proposed modifications to 2 CFR Part 200.

5.1.1 Principles

OBAE intends to use the capabilities and structures it has developed for pre-BEAD programs to inform, to the greatest extent possible, the BEAD deployment subgrantee selection process in a way that is fair, open, and competitive. All elements of the BEAD program have been designed with these goals at the forefront, as well as OBAE's related BEAD design principles and core values:¹⁰

¹⁰ "About," OBAE, <https://connect.nm.gov/about-obae.html>.

- Impact
 - Grant strategy should seek to make limited funds reach as far as possible
 - Fiber-to-the-premises should be prioritized and funded to every possible unserved and location with underserved locations to be considered if funding allows
 - Process and requirements should make prudent use of public funds through rigorous review and qualification of applications
- Simplicity and widespread participation
 - The process should be designed to encourage maximum participation by eligible applicants and opportunity for smaller and local applicants, including Tribal ISPs
 - The program, from design to final execution of grant agreements, should limit burdens on applicants and enable efficient applicant participation
 - The program design should also enable efficient grant program administration while accounting for BEAD’s complexity
- Openness, fairness, and competition
 - The process should reflect the key goals of enabling participation through openness, sharing of information, fairness, and commitment to competition
 - All elements of grant strategy, including geographic units for proposals, should be designed to increase the potential for competition among applicants statewide and in specific areas, as well as for public entities and Tribal ISPs
 - The preferences of New Mexico’s Pueblos, Nations, and Tribes will be the determining factor with regard to which entities are awarded funds to deploy broadband on sovereign Tribal lands

Openness is a key element of OBAE’s core value, “Honest,” and is a guiding principle for OBAE as it undertakes both the BEAD program and other broadband and digital equity initiatives. Openness is crucial to ensure the best outcomes for unserved and underserved communities and will involve a range of strategies:

1. Open and inclusive eligibility for grant awards, welcoming applications from a wide range of entities
2. Community and Tribal input at all stages of the BEAD process, including through engagement and feedback to the planning process and the plans themselves

3. Openness and transparency in the evaluation process, with feedback to unsuccessful applicants to build trust and encourage participation
4. To ensure against risks of bias, collusion, conflict of interest, and self-dealing, OBAE 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

Fairness for ISP applicants in a competitive grant program for building broadband infrastructure is essential to encourage competition, innovation, and the efficient use of resources while ensuring that unserved and underserved areas receive the connectivity they need. To ensure fairness in its BEAD grant process, OBAE anticipates the following:

1. 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 and guidance for how to self-score applications based on the scoring criteria established by OBAE
2. Ongoing and frequent communications through public means such as grant workshops and frequently updated FAQs, to enable maximum information sharing with potential applicants
3. Inclusive eligibility criteria that are clear, inclusive, and not overly restrictive, within the parameters of the BEAD program, to ensure that entities of all sizes can participate, including locally owned and Tribal ISPs
4. Clear scoring criteria
5. Competitive process that encourages applicants to submit innovative proposals and cost-effective solutions
6. Fair review process that is impartial and free from conflicts of interest, with independent evaluators engaged to assess proposals. OBAE staff that are involved in technical assistance will not be part of grant review processes or privy to grant evaluation data or information. Furthermore, to ensure against risks of bias, collusion, conflict of interest, and self-dealing, OBAE will verify that all reviewers are entirely financially independent of all applicants. Reviewers will be required to certify in writing that they have no employment, contract, or other business relationship with any applicant or any affiliate or subsidiary of any applicant.

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

1. Broad eligibility and participation of a wide range of entities, including nonprofits, municipalities and counties, and Tribal entities
2. A low-burden grant program that is designed to make it feasible for all sizes of entities to compete without facing unreasonable costs or level of effort
3. Incentives for collaboration by applicants with other providers, local governments, Tribal governments, and community organizations

5.1.2 Technical assistance and administrative support

To support openness, fairness, and competition in its BEAD grant efforts, OBAE plans extensive communications, technical assistance, and administrative support for applicants throughout the process. OBAE manages a substantial technical assistance program that provides engineering and business planning guidance to communities, with a particular focus on Tribal entities that are developing ISP operations.

As it has done with its other broadband grant programs, OBAE will leverage its considerable grant funding experience and existing program framework to provide technical assistance resources and administrative support during the subgrantee selection process for its BEAD grant funding program. OBAE will use its existing communications channels to provide all stakeholders in the State with the most accurate and up to date information regarding key deadlines and milestones for its BEAD program. OBAE's outreach processes and technical assistance materials will provide guidance, templates, and information about each of the subgrantee selection process elements discussed below.

OBAE has an extensive email list of stakeholders, including ISPs, Tribal governments, local governments, Community Anchor Institutions, State agencies, and nonprofit organizations. OBAE also has a robust web, newsletter, and social media presence and that includes a Tribal newsletter that is focused on engaging New Mexico's Tribes, Pueblos, and Nations on topics of broadband.

OBAE will use these tools to alert potential applicants of each milestone during the process outlined below as well as providing information on technical assistance opportunities or updated information about program requirements. OBAE's stakeholders will also be encouraged to further distribute information about the BEAD program through their own email lists and website postings. OBAE will also use its website as a repository for potential applicants to access detailed application materials and technical assistance resources.

5.1.3 Overview of planned subgrantee selection process

OBAE anticipates a multi-step process for selecting subgrantee for its BEAD funds that will (1) begin with prequalification of applicants (Prequalification Phase), (2) then proceed to receipt and

scoring of grant applications (Scoring Phase), and (3) then proceed to negotiations with applicants (Negotiation Phase).

Prioritization of Fiber Projects. OBAE recognizes the preference in federal BEAD policy for projects that involve deployment of end-to-end fiber, which are considered by NTIA to be “Priority Broadband Projects.”¹¹ That federal preference is consistent with the State of New Mexico’s own policy to use public funds to build infrastructure that will meet the needs of the future wherever possible. Given these two considerations, OBAE plans to prioritize end-to-end fiber proposals, consistent with the BEAD NOFO, and to make awards for alternative technologies —such as fixed wireless—only if and where the costs of fiber exceed the Extremely High Cost Per Location Threshold, per NTIA’s requirements, or where no proposals are received for fiber because of geographic or other constraints.

OBAE’s analysis is that BEAD funds may be sufficient to fund fiber-to-the-premises to the majority of unserved locations, based on the economics of fiber deployment and operations and the financial contributions that applicants are projected to commit through match and other funds. The analysis demonstrates that about 80 to 90 percent of the unserved premises can be connected by fiber and yield a sustainable business case through a combination of private investment and subsidy support, based on the available BEAD funding. The analysis further concludes that the remaining qualifying premises will have to be served by alternative technologies given the public funding available.

Given the unpredictability of fiber construction costs during the BEAD timeline and considering the challenges reaching many extremely remote locations in some parts of New Mexico, alternative technologies may be necessary to address the needs of some unserved locations. Given this, OBAE intends to accept applications not only for fiber but also for alternative technologies that are considered “non-Priority” under the federal rules, and to make those awards as necessary for locations that do not receive viable fiber applications given the available funding.

Project Area Unit Design. In determining how to structure the BEAD grant program, a critical issue is the question of how grant funding areas (Project Area Units, or PAU) will be designed, by whom, and with what requirements. (See Section 5.7 for more details.) This issue is of importance because of the dual challenges of (1) the need to deploy to as many as possible unserved

¹¹ According to the federal government’s rules for this program, “the term ‘Priority Broadband Project’ means a project that will provision service via end-to-end fiber-optic facilities to each end-user premises.” The rules provide that projects can only be funded with alternative technologies if the costs for fiber-to-the-premises exceed a cost threshold (known as the “Extremely High Cost Per Location Threshold”) that is calculated to enable all unserved locations to receive service with the available BEAD funding. States may decline to fund fiber-to-the-premises only in the event that the costs exceed the Extremely High Cost Per Location Threshold and the alternative approach is approved by NTIA. See BEAD Notice of Funding Opportunity, Section IV.B.7.

locations, and (2) the economic challenge presented by some of the most remote locations, not only for the high cost of construction but also the very high cost of operations relative to potential revenue. How grant Project Area Units are defined—and the rules for provision of service to all unserved locations within them—is a critical step in framing the geography grant applications will cover.

The federal rules that govern the BEAD program allow each state to determine how to design grant areas or to choose to allow applicants to do so, so long as the state has a plan to address the needs of all unserved and underserved locations.¹²

OBAE plans to define Project Area Units itself and to require applicants to provide proposals for unserved locations within the boundaries of the areas defined by OBAE.

The Project Area Units will be designed by OBAE based on a range of factors, including:

- **Geographic boundaries**, including those of Tribal lands and high cost areas
- **Locations of underserved locations and their proximity to unserved locations**, increasing the likelihood that grant-funded deployment to unserved locations could result in awardees also serving underserved locations, because of the efficiencies and business opportunity presented for the applicant
- **Proximity of existing network infrastructure** and potential to efficiently extend that infrastructure
- **Geographic and topographic factors** such as mountains, highways, rivers, and railway lines that naturally define broadband infrastructure architecture because traversing them is complex and costly
- **Potential for competition** among applicants to submit competitive and attractive applications to serve those areas. Ideally, Project Area Unit design will encourage competition among applicants and result in multiple bids.

¹² According to the BEAD NOFO, a state “may solicit proposals from prospective subgrantees at the geographic level of its choosing—for example, on a per-location basis, per-census block basis, per-town, per-county or another geographic unit. An Eligible Entity may alternatively solicit proposals for project areas it defines or ask prospective subgrantees to define their own proposed project areas. If the Eligible Entity allows prospective subgrantees to define proposed project areas, it must develop a mechanism for de-conflicting overlapping proposals (for example, by de-scoping some locations from a provider’s proposed project area) to allow for like-to-like comparison of competing proposals. Whatever process is selected, the Eligible Entity must ensure it has a plan for serving all unserved and (where it has sufficient funding) underserved locations.” BEAD NOFO, page 38.

- **Economic and technical viability and efficiency** in which OBAE’s internal data, modeling, and engineering expertise will help to define the most economically viable grouping of unserved locations into a single geographic unit for bidding
- **Community needs** where possible to ensure that boundaries reflect unique local circumstances

OBAE will undertake the Project Area Unit design process once the list of eligible locations is finalized at the end of the Challenge Process that will be run in early 2024 (following NTIA’s approval of the Initial Proposal Volume I). The process will be conducted by OBAE while NTIA is doing its Challenge Process Validation and immediately in advance of release of the BEAD grant materials.

OBAE will make information regarding the Project Area Units available to potential applicants at the time of release of grant materials, accompanied by lists of eligible locations. Applicants will be required to submit one application for the total project, with separate financials for each Project Area Unit to enable OBAE to make like-to-like comparisons among applications and fairly score competing applications, and complete application deconfliction, for each Project Area Unit.

Alternative service commitment percentages. OBAE proposes to require applicants to provide proposed pricing (minimum required subsidy) for service to 100 percent of unserved locations in the Project Area Unit. In addition, OBAE plans to allow applicants to also propose to serve a lower percentage of unserved locations in each Project Area Unit, in recognition of the fact that every Project Area Unit may include locations that are so remote and hard to reach—with any terrestrial technology—that including those locations in an application may serve to make the area too costly to be funded.

For these reasons, OBAE will allow proposed pricing for less than 100 percent of eligible locations in a Project Area Unit, seeking alternative pricing based on alternative coverage commitments (Alternative Percentage) to reach nearly all unserved locations in the Project Area Unit.

The Alternative Percentages will be set by applicants at the applicants’ discretion on a custom basis for each Project Area Unit.

This strategy will allow for the option of funding proposals to serve *many* unserved locations in a Project Area Unit if no cost-effective application is received for 100 percent of unserved locations, to increase the chances of funding the vast majority of unserved locations throughout the State with the best technology possible.

OBAE recognizes that this approach may lead to applications for overlapping geographic areas that will require a deconfliction and clarification effort. To this end, OBAE intends to undertake a scoring and negotiation process with applicants to arrive at an outcome.

Detailed discussion of the issue of service area commitments is provided below in Section 5.7.

The Extremely High Cost Per Location Threshold. Given the unpredictability of fiber construction costs during the BEAD timeline and considering the challenges reaching many extremely remote locations in some parts of New Mexico, fiber costs are likely to exceed available BEAD resources. For that reason, consistent with NTIA’s BEAD rules, OBAE anticipates using the Extremely High Cost Per Location Threshold (EHCPLT) mechanism for making awards for alternative technologies, such as fixed wireless, that may be necessary to address the needs of some unserved and underserved locations. Consistent with NTIA rules, OBAE will make those awards as necessary only for locations that do not receive fiber proposals or whose fiber proposals exceed the NTIA-mandated EHCPLT.¹³

The EHCPLT is the mechanism NTIA requires that states use to determine the cost at which it is infeasible to fund fiber to eligible locations; above that threshold, alternative, lower-cost technologies can be funded based on the EHCPLT calculation that funding more fiber to those locations would exceed the available BEAD budget. As a result, the EHCPLT enables states to identify the higher-cost locations that are too costly for fiber deployment and where NTIA will allow approve alternative technologies that are less expensive but still meet BEAD’s definition of broadband.

The EHCPLT is thus a critical element of determining how to serve Project Area Units that do not receive cost-effective proposals for fiber, as well as how to serve locations that are excluded from fiber proposals by applicants.

Detailed discussion of OBAE’s strategy for using the EHCPLT is provided below in Section 5.11.

5.1.4 Phases

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

1. **Prequalification Phase**, to establish the qualifications of prospective applicants
2. **Scoring Phase**, during which OBAE will receive, review, and score grant applications

¹³ The EHCPLT is described by NTIA as “a BEAD subsidy cost per location to be utilized during the subgrantee selection process in which an Eligible Entity may decline to select a proposal if the use of an alternative technology meeting the BEAD Program’s technical requirements would be less expensive.” BEAD NOFO, page 13.

3. **Negotiation Phase**, in which OBAE will engage with applicants to reach final project boundaries and costs

In addition, OBAE reserves the opportunity to undertake a second-round grant process to seek additional or alternative applications in the event OBAE determines that it could get a better outcome by inviting new applications based on alternative parameters.

The following is detail on the three key phases OBAE anticipates for the BEAD funding grant process. Further, additional detail is also provided in the sections below, per NTIA's template for the Initial Proposal, Volume II.

5.1.4.1 Prequalification Phase

During the Prequalification Phase, OBAE will accept prequalification materials from all prospective applicants, enabling applicants to establish their qualifications and OBAE to prequalify them in advance of the Scoring Phase. Note that the prequalification phase evaluates entities intending to apply for BEAD funds, not projects, and that prequalified entities will need to submit their applications for scoring in the competitive process described in 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. It will enable OBAE to maximize the limited time available for the Scoring Phase, extending the available time to this earlier phase so as to allow both prospective applicants and OBAE's reviewers sufficient time to address qualifications. Given the rigorous and robust documentary requirements for BEAD, a prequalification process will enable applicants to spread their grant application efforts across a lengthier timeline.

Second, the process will help to manage OBAE'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 on evaluating proposals from organizations that meet NTIA's and the State of New Mexico'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 OBAE, as necessary, and provision of additional information by applicants. With an earlier process for qualification, this curing need not take place at the same time as curing of proposed project applications themselves, which will be an enormous undertaking in and of itself.

OBAE'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.

All entities whose prequalification materials are determined to be sufficient will be qualified by OBAE to proceed to the Scoring Phase of the program and submit proposals. Note that entities that wish to submit applications as consortiums, partnerships, or other group applications that will not be a sole organization should submit a pre-qualification as the group entity, based on the ownership disclosures made as required by NTIA and as described in Section 5.12.9.

Prior to the official start of the subgrant process, initial information about the Prequalification Phase including the nature and format of required information will be made available in early 2024, pending final NTIA approval of this Volume II. The Prequalification Phase will begin early and will afford potential applicants considerable time to prepare and submit their prequalification materials.

OBAE expects to implement the following communications process for the Prequalification Phase:

- OBAE will announce the dates of its Prequalification Phase at least 15 days prior to the opening of the window or 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, OBAE will make prequalification materials available on its website using a dedicated webpage.
- OBAE will conduct an online application workshop on or around the first day of the Prequalification Phase window. 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 available on the OBAE website and the FAQ document will be updated to reflect questions and answers from the workshop.
- During the Prequalification Phase window, OBAE will have a dedicated email address available for participants to use to ask questions and request technical assistance. To provide transparency, fairness, and additional technical assistance, OBAE will update its FAQ document on a regular basis with the questions and answers generated by the email inquiries and in-person meetings.
- OBAE will notify Prequalification Phase participants if they are prequalified and eligible to submit a Scoring Phase Application within 65 days of the close of the Prequalification window.

- OBAE will allow for reasonable curing to seek to ensure an optimal participation level of qualified ISPs.

5.1.4.2 Scoring Phase

Following completion of the Challenge Process, approval by NTIA of Volume II of the Initial Proposal, and completion of the Prequalification Process, OBAE will accept, review, and score grant applications for specific projects.

OBAE plans to define project areas through a Project Area Unit Determination Process in which it will design and specify the geographic boundaries of the Project Area Units for which prospective subgrantees can bid. OBAE will make these data available to potential applicants at the time of release of grant materials. Project Area Unit data will be released, accompanied by lists of eligible locations as identified through OBAE's Challenge Process. (OBAE will also develop benchmark pricing for each Project Area Unit as a tool for scoring cost proposals, based on the OBAE's own cost modeling, but the pricing will not be released.)

OBAE anticipates undertaking the Project Area Unit design process once the Challenge Process is complete and eligible locations have been finalized pursuant to NTIA rules. Project Area Units will be designed by OBAE while NTIA is doing its Challenge Process Validation and immediately in advance of release of the BEAD grant materials.

The Project Area Unit design process will have three elements:

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

Each of these elements is described in detail below—along with OBAE's planned application process.

5.1.4.2.1 Geographic boundaries

OBAE 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:

The Project Area Units will be designed by OBAE based on a range of factors, including:

- **Geographic boundaries**, including those of Tribal lands
- **Locations of underserved locations and their proximity to unserved locations**, increasing the likelihood that grant-funded deployment to unserved locations could

result in awardees also serving underserved locations because of the efficiencies and business opportunity presented for the applicant

- **Proximity of existing network infrastructure** and potential to efficiently extend that infrastructure
- **Geographic and topographic factors** such as mountains, highways, rivers, and railway lines that naturally define broadband infrastructure architecture because traversing them is complex and costly
- **Potential for competition** among applicants to submit competitive and attractive applications to serve those areas. Ideally, Project Area Unit design will encourage competition among applicants and result in multiple bids.
- **Economic and technical viability and efficiency** in which OBAE's internal data, modeling, and engineering expertise will help to define the most economically viable grouping of unserved and underserved locations into a single geographic unit for bidding
- **Community needs** where possible to ensure that boundaries reflect unique local circumstances

Applicants will be required to submit separate grant applications for each Project Area Unit to enable OBAE to make like-to-like comparisons among applications and score competing applications for each Project Area Unit fairly.

5.1.4.2.2 Alternative Percentage commitment options

Applicants will be required to submit a bid to serve 100 percent of unserved locations in the Project Area Unit and to propose an associated cost. In addition, the design of potential Project Area Units may include another parameter: a coverage percentage below 100 percent of unserved locations within a Project Area Unit to which applicants can commit to deploy broadband (Alternative Percentage).

In every Project Area Unit, there will be individual locations that 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 Project Area Unit.

Given these challenges, OBAE will allow for applications that include Alternative Percentage commitments.

OBAE will not designate or require a certain allowable Alternative Percentage in a given PAU. OBAE also will not define specific locations to remove. Rather, the applicant will be allowed to

identify the unserved locations that most significantly impact the cost of their proposal and account for the Alternative Percentage of all unserved locations in the project area. Applicants will be required to submit with their applications the Alternative Percentage at which they wish to bid (in addition to 100 percent), as well as a list of the eligible unserved locations that they choose to remove from their bid (and the rationale for doing so), consistent with the Alternative Percentage the applicant proposes. The applicants will be advised that removal of locations based on factors other than high cost is greatly disfavored by OBAE and that applications that are aggressive in this way may be disqualified or, in the event that OBAE believes it warranted, the Project Area Unit may be put out for bid in a subsequent application round.

OBAE understands that pricing for each category may vary significantly. Indeed, that varied pricing is part of OBAE's goal for this strategy as it will allow for the option of funding proposals to serve many unserved locations in a Project Area Unit in the event that no cost-effective application is received for 100 percent of unserved locations. As a result, this Alternative Percentage strategy will provide a range of alternative percentage options for how OBAE can use its finite BEAD funds to reach as many unserved New Mexico locations as possible with fiber in the most efficient and impactful way.

Wherever possible, OBAE will make awards to applications that propose to serve 100 percent of locations.

5.1.4.2.3 Benchmark pricing

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

For each designated Project Area Unit, OBAE's benchmark price will be generated through OBAE's modeling. This strategy is designed to enable OBAE 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 OBAE'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 Mexico. 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 OBAE to develop an area-by-area benchmark to evaluate funding proposals and proposed match commitments.

The benchmark price will not be released to applicants but will be kept confidential and used by OBAE only for the purpose of scoring.

Critically, use of localized benchmarks for scoring cost proposals is a means of ensuring fairness of process across the State and for all ISPs. This is because the cost scoring will be based on the relationship of proposed costs to the customized local benchmark, which reflects local deployment conditions in which some locations are considerably more expensive to deploy than others. OBAE has concluded that such scoring is more appropriate and fair than scoring costs based on a fixed formula that does not recognize the considerably higher costs that some locations require. Stated otherwise, the benchmark basis for scoring allows applicants to fairly compete with each other on a statewide basis based on the costs they propose relative to the benchmark, rather than competing based on the lowest-cost locations in New Mexico.

To effectuate this set of goals, OBAE proposes to award up to 200 points (out of a total possible 400) for proposed grant costs and proposes to score applications based on the grant amount proposed relative to the benchmarked pricing developed by OBAE for each location. More detail about scoring is included in Section 5.3 below.

5.1.4.2.4 Application process

Once OBAE has received full authorization from NTIA based on approval of the outcome of the Challenge Process and of the Initial Proposal Volume II, OBAE will open the grant window, distribute grant materials, and accept applications for proposed projects.

OBAE expects to implement the following communications process for the application process:

- OBAE will announce the dates of its Scoring Phase prior to the opening of the window for acceptance of applications.
- OBAE will make BEAD application materials available on its website using a dedicated webpage. These materials will consist of an Application and Guide, Program Guide, and Frequently Asked Questions (FAQ) documents. OBAE will provide an additional resources page 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.
- OBAE will conduct an online application workshop on or around the day of 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 available on

the OBAE website and the FAQ document will be updated frequently to reflect questions and answers from the workshop and questions received by email.

- During the time the grant application window is open, OBAE will have a dedicated email address available for participants to use to ask questions and request technical assistance and reasonable curing. To provide transparency, fairness, and additional technical assistance, OBAE will update its FAQ document on a regular basis with the questions and answers generated by the email inquiries and in-person meetings.
- OBAE will allow for reasonable curing.
- OBAE will continue to use all available communication channels to update applicants on milestones, deadlines, updated FAQ material, and technical assistance resources as they are made available by OBAE, NTIA, NIST, FCC or other relevant stakeholders.

5.1.4.3 Negotiation Phase

During the Negotiation Phase, OBAE will engage with applicants in negotiations designed to reach final agreement on two topics for PAUs with bids: project area boundaries (number and location of BSLs related to the Alternative Percentage) and costs.

Once the applications are received, OBAE will evaluate and score the full range of applications that are received and will consider how to follow up in a process that is designed to enable OBAE to reach the best possible comprehensive and statewide outcome. Considerations will be given to award highest-scoring applicants for a priority broadband project. NTIA's rules for the program explicitly anticipate that states will need to negotiate with applicants for a range of purposes, including to reduce or change pricing and to expand or reduce geographic boundaries (PAUs). OBAE may use the negotiation phase of the program for both purposes: first, to negotiate pricing with applicants to secure for the consumers of New Mexico the best possible deal for the BEAD funds, and second, to negotiate geographic boundaries where necessary.

In the event that some PAUs do not receive any application at all, OBAE will negotiate with one or more applicants to determine whether and under what circumstances they would be willing to serve those. OBAE will begin negotiations for unbid PAUs with applicants who have bid adjacent PAUs. OBAE may negotiate with one or more entities at a time, both to mitigate the risks of the compressed timeline and to maximize the benefits of competition. Considerations in awarding an unbid PAU will be the same as a PAU that received a bid.

Furthermore, OBAE reserves flexibility to negotiate with one or more entities regarding potential pricing for given locations, seeking to maximize the reach and value of the BEAD funds to bring broadband to unserved locations throughout New Mexico.

Should OBAE be unable to negotiate an economical and sufficient bid, OBAE will add the BSLs in the PAUs within the bid into a LEO or other alternative technology service program along with BSLs removed in an Alternative Percentage.

5.1.4.3.1 Provisional awards and Final Proposal

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

Upon NTIA approval of the Final Proposal, OBAE will finalize the provisional awards through contract negotiation and execution with the applicants. Included in its formal contract with subgrantees, OBAE will implement NTIA’s recommended Sub-granting Accountability Procedures, which will include: 1) disbursement of funding on a reimbursable basis, to ensure completion of subsidized activities; 2) claw-back 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 OBAE’s reporting schedule to NTIA.

If an applicant is provisionally awarded one or more projects and the awarded party fails to execute on all commitments—such as when the party is not willing to accept full responsibility of the entire award—OBAE reserves the right to declare the award in default and solicit alternate proposals from incumbents or proposers of nearby project areas.

5.2 Overall timeline

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

Process element	Tentative timeline, subject to change
Prequalification materials released	15 days in advance of opening of Prequalification Phase window for acceptance of prequalification materials
Prequalification workshop/webinar	On or around release of prequalification materials
Prequalification responses accepted by OBAE	30 days following opening of window for acceptance of prequalification materials
Review of prequalification materials, including curing as necessary	45 days following closing of window for acceptance of prequalification materials

Process element	Tentative timeline, subject to change
Announcement of prequalification determinations	Within 60 days of closing of window for acceptance of prequalification materials
BEAD grant application materials, including eligible locations, released	Within 30 days following approval by NTIA of Initial Proposal Volume II
BEAD grant application workshop/webinar	On or around the date of release of application materials
BEAD grant applications accepted by OBAE	45 days following release of application materials
Review of BEAD grant application materials, including curing as necessary	45 days following closing of application window for receipt of applications
Negotiation process and/or second phase grant window	Within 90-120 days following closing of window for receipt of applications
Review of BEAD grant application materials, including curing as necessary	Within 90 days following closing of window for receipt of applications, as necessary
Announcement of provisional BEAD determinations, subject to NTIA approval of the Final Proposal	Within 150 days following initiation of the Scoring Phase
30-day public comment period	Immediately following announcement of provisional BEAD determinations
Submission to NTIA of the Final Proposal	Within 365 days of approval by NTIA of the Initial Proposal Volume II

5.3 Scoring methodology

5.3.1 Prequalification Phase

New Mexico’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.

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 be evaluated for prequalification purposes and will be included in scoring consideration, per the scoring rubric described below.

In the event reviewers find the data submitted to be insufficient or unclear, OBAE may choose to cure submissions by providing applicants with 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.

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

In the Prequalification Phase, OBAE 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

- Unqualified audited financial statements from the past year
- Statement signed by an executive with the authority to bind the company that certifies the financial qualifications

Managerial capability

- Resumes of relevant management staff that cumulatively demonstrate a minimum of five years of experience with broadband network design, construction, maintenance, and operations
- Organizational chart and a narrative detailing the applicant's processes and structure to manage large projects

Technical capability

- If not submitted as part of the managerial capability requirements, applicants must provide the resumes of an employed CTO and contractor oversight team with the relevant certifications (both management and non-management) for deployment projects as mandated by State and federal law
- Certification that if the applicant chooses to contract resources, all contracted resources will have the relevant and necessary skills

Operational capability

- 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 the applicant has provided a voice and/or broadband service, certification that the application has filed FCC Form 477s and Broadband DATA Act submissions, if applicable, as required during this time period, and otherwise has complied with FCC requirements
- If the applicant has not provided broadband service and has operated only an electric transmission or distribution service, the applicant will be asked to submit qualified operating or financial reports, that it has filed with the relevant financial institution for the relevant time period along with a certification that the submission is a true and accurate copy of the reports that were provided to the relevant financial institution

Legal compliance

- A legal opinion from the applicant's legal counsel attesting to compliance and detailing any violations or pending court proceedings
- Certification that the applicant will permit workers on BEAD deployment projects to create worker-led health and safety committees that management will meet with upon reasonable request
- Ownership information consistent with the requirements set forth in 47 C.F.R. § 1.2112(a)(1)-(7)

Cybersecurity compliance

- 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
- Certification that the applicant's cybersecurity 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
- Certification that the applicant's cybersecurity plan will be reevaluated and updated on a periodic basis and as events warrant and a timeline for how frequently the plan is reevaluated and updated
- Certification that the applicant's cybersecurity plan will be submitted to OBAE following execution of grant agreements, and if the applicant makes any substantive changes to the plan, a new version will be submitted to OBAE within 30 days

Supply chain compliance

- 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
- Certification that the applicant's supply chain risk management 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
- Certification that the applicant's supply chain risk management plan will be reevaluated and updated on a periodic basis and as events warrant and a timeline for how frequently the plan is reevaluated and updated
- Certification that the applicant's supply chain risk management plan will be submitted to OBAE prior to the allocation of funds, and if the applicant makes any substantive changes to the plan, a new version will be submitted within 30 days

Other public funding: 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

In addition, as part of the prequalification process, consistent with NTIA's requirements, OBAE will require the following materials regarding **Fair Labor Practices**, which will be part of both prequalification and later grant application scoring:

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, or any other applicable labor and employment laws for the preceding three years, or
 - Disclosure of any findings of such violations

2. Certification that the potential subgrantee, and its proposed contractors and subcontractors, have existing labor and employment practices in place and that the subgrantee will recertify this annually for the duration of the BEAD implementation period, including:
 - Applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction of the network
 - Certification that the potential subgrantee will ensure the implementation of workplace safety committees that are authorized to raise health and safety concerns in connection with the delivery of deployment projects and that the applicant will recertify this annually for the duration of the BEAD implementation period

5.3.2 Scoring Phase

OBAE’s proposed scoring rubric is consistent with NTIA’s rules, which specify three primary criteria that together must account for 75 percent of scoring, as well as secondary criteria that are based on New Mexico’s own public policy priorities.

OBAE will begin its evaluation of proposals by ensuring that the applicants have provided all required materials. Incomplete applications will not be considered.

Following a determination of completeness, OBAE will review and evaluate the proposals based on the criteria discussed below, which can add up to a total score of 400.

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).¹⁴ 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.

5.3.2.1 Primary criteria

Minimal BEAD program outlay: up to 150 points

OBAE will score applications based on the grant amount proposed relative to OBAE’s benchmark pricing analysis for the service area proposed by the applicant. The benchmark pricing analysis is

¹⁴ NTIA’s guidance documents provide detail regarding NTIA’s scoring requirements for these two types of projects; “BEAD Initial Proposal Guidance,” NTIA, October 2023, https://broadbandusa.ntia.doc.gov/sites/default/files/2023-10/BEAD_Initial_Proposal_Guidance_Volumes_I_II_10-2023.pdf.

based on OBAE's own cost model and other data. Points will be awarded based on the following formula:

- a. Proposals that are 80 percent or more below the benchmark will receive the full 150 points
- b. Proposals that are equal to the benchmark will receive half the possible points
- c. Proposals that exceed the benchmark by 100 percent or more will receive zero points
- d. Proposals that are less than the benchmark will receive 100 points **plus** the total of 100 multiplied by the fraction of the benchmark proposed for grant funding
- e. Proposals that are more than the benchmark will receive 100 points **minus** the total of 100 times the fraction of the benchmark proposed for grant funding

Affordability: up to 100 points

For Priority Broadband Projects: OBAE will score affordability based on the pricing proposed for the symmetrical 1 Gbps service tier. The points received will be determined by the degree to which the applicant's proposed price varies from a reference price for symmetrical 1 Gbps, which OBAE will publish later. This reference price will reflect the average price for symmetrical 1 Gbps, as determined by the data in the FCC's Urban Rates Survey. An applicant will receive 50 points if they commit to honor the reference price. The applicant will receive greater points, up to 100, based on the degree of discount relative to the reference price, with all 100 points received if the discount exceeds a certain percentage level. The applicant will receive fewer points based on the degree greater, with zero points offered if the premium surpasses a certain percentage level. OBAE will publish the scoring range for symmetrical 1 Gbps affordability in its future program guidance.

For Other Last-Mile Broadband Deployment Projects: OBAE will score affordability based on the pricing proposed for the 100/20 Mbps service tier. The points received will be determined by the degree to which the applicant's proposed price varies from a reference price for 100/20 Mbps, which OBAE will publish later. This reference price will reflect the average price for 100/20 Mbps, as determined by the data in the FCC's Urban Rates Survey. An applicant will receive 50 points if they commit to honor the reference price. The applicant will receive greater points, up to 100, based on the degree of discount relative to the reference price, with all 100 points received if the discount surpasses a certain percentage level. The applicant will receive fewer points based on the degree greater, with zero points offered if the premium surpasses a certain percentage level. OBAE will publish this scoring range for 100/20 Mbps affordability in its future program guidance.

Fair labor practices: up to 50 points

Up to 50 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.

New entrants without a lengthy record of labor and employment law compliance will receive points in this category based on specific, concrete commitments to strong labor and employment standards and protections going forward.

Up to 30 points will be deducted for official labor relations complaints or violations in the five years preceding the date of application.

5.3.2.2 Secondary criteria

High-cost area: up to 30 points

NTIA provided high-cost areas on the FCC map where no match and/or less than 25 percent match is required. Many of these areas are difficult deployment locations and the State of New Mexico seeks to ensure these difficult to deploy regions are served. Applications that have 1 or more high-cost areas shall receive the full points. Bids that do not contain bids with high-cost area will receive zero points.

Low-income households: up to 29 points

The State of New Mexico seeks to ensure rural and low-income households are given access to affordable high-speed broadband. Applications that include PAUs with high populations of low-income households at 200 percent of federal poverty line shall receive additional points based on the matrix below. OBAE reserves the right to adjust the matrix based on development of the PAUs and public comment.

- Total application containing more than 50 percent of households below 200 percent of federal poverty line shall receive full points
- Total application containing more than 40 percent but less than 50 percent of households below 200 percent of federal poverty line shall receive 20 points to 28 points
- Total application containing more than 30 percent but less than 40 percent of households below 200 percent of federal poverty line shall receive 10 points to 19 points
- Total applications containing less than 30 percent will receive no points

Technical capabilities: up to 20 points

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.

Additionally, consideration will be given to network design that furthers future deployment to underserved locations, community anchor institutions, and low-income multi-dwelling units that the BEAD funding allocation does not currently allow OBAE to consider funding.

Accordingly, OBAE will award up to 20 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 broadband services to at least 80 percent 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 Speed of Network and Sufficient Capacity.
- **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 percent 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). Applications that do not make this demonstration will be awarded zero points for Scalability.
- **Cost-effective future upgrade and capital investment path:** Up to 5 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.

- **Network design:** Up to 5 points will be awarded to applications that demonstrate a cost-effective network design that can reduce costs for and accommodate future deployment to eligible locations of underserved, community anchor institutions, and low-income multi-dwelling units.

Community and partnership support: up to 15 points

OBAE will award up to 15 points to applicants for demonstrations of support and partnerships formed in the area to be served by an application from local governments, Tribal governments (for applications that propose to build on Tribal lands), and other community institutions and stakeholders. Points will be awarded based on both the volume of documents of support and on the clarity and extent of support demonstrated in the documentation. Documents can include such items as letters, board or council resolutions, commitments of funding, and commitments to purchase services if the project is funded.

Aggregation of PAUs: up to 5 points

OBAE will award up to 5 points to applicants for applications with adjacent PAU bids. Total applications with two or more adjacent PAUs will receive full points. Total applications that do not have any PAUs that are adjacent to one another will receive zero points.

Speed to deployment: up to 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.

5.3.2.3 Scoring rubric

When this Initial Proposal is submitted to NTIA, it will include a complete and expanded scoring rubric in Appendix D: Proposed scoring rubric. An outline of OBAE’s proposed scoring rubric is provided below, first for Priority Broadband Projects and then for Other Last-Mile Broadband Deployment Projects:

Table 1: Scoring criteria for Priority Broadband Projects

Primary scoring criterion (all are mandatory under NTIA rules)	Points available
Total outlay of funds	150
Lowest price gigabit service commitment	100
Compliance with federal fair labor laws	50
Primary criteria subtotal	300

Primary scoring criterion (all are mandatory under NTIA rules)	Points available
Secondary criteria	
High-cost areas	30
Low-income households	29
Technical review	20
Community and partnership support	15
Aggregation of PAUs	5
Speed to deployment (mandatory under NTIA rules)	1
Secondary criteria subtotal	100
Total	400

Table 2: Scoring criteria for other last-mile broadband deployment projects

Primary scoring criterion (all are mandatory under NTIA rules)	Points available
Total outlay of funds	150
Lowest price 100/20 Mbps service commitment	100
Compliance with federal fair labor laws	50
Primary criteria subtotal	300
Secondary criteria	
High-cost areas	30
Low-income households	29
Technical review	20
Community and partnership support	15
Aggregation of PAUs	5
Speed to deployment (mandatory under NTIA rules)	1
Secondary criteria subtotal	100
Total	400

5.4 Prioritization of unserved BSLs, underserved BSLs, and eligible CAIs

OBAE recognizes the statutory BEAD requirement for unserved locations as first priority, underserved locations as second priority, community anchor institutions as third priority, and affordable housing and other priorities following the first three. This prioritization is mandated by federal law and aligns with OBAE’s plans for how to utilize the BEAD funds.

New Mexico's internal modeling suggests that the funds available may provide for fiber-to-the-premises to the majority of unserved with little or no funding for underserved locations, with the remainder served with alternative technologies. However, OBAE believes it is unlikely, given the insufficient funds allocated to New Mexico under the BEAD framework, that New Mexico will have additional funds for community anchor institutions or non-deployment activities.

OBAE thus proposes to focus the BEAD funding on unserved locations. In the event that all unserved locations can be served with fiber-to-the-premises based on the results of the BEAD application process described above, OBAE reserves the opportunity to negotiate with applicants and/or undertake an additional application round with remaining BEAD funds for service underserved, and community anchor institutions.

Furthermore, OBAE plans that, if the funds are insufficient to deliver fiber to all unserved and underserved locations, applications to serve high-poverty and persistent poverty areas will be prioritized.

5.5 Prioritization of non-deployment projects

Not applicable.

5.6 Environmental and historic preservation and Build America, Buy America Act compliance

OBAE plans to highlight issues of historic preservation, environmental preservation, and BABA for potential applicants during the application workshops and in the various application materials—and will require that all applicants certify their intention to comply with all related requirements in the prequalification phase of the BEAD grant program.

OBAE 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.

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, OBAE intends that it will actively use its subgrantee monitoring program post-award to verify that applicants are indeed compliant with these requirements.

5.7 Project area definition

As is described in detail above, OBAE intends to define Project Area Units and require applicants to provide proposals for unserved locations within the boundaries of the Project Area Units.

The Project Area Units will be designed by OBAE based on a range of factors, including:

- **Geographic boundaries**, with consideration to Tribal lands and neighboring communities, high-cost areas, and school districts
- **Locations of underserved locations and their proximity to unserved locations**, increasing the likelihood that grant-funded deployment to unserved locations could result in awardees also serving underserved locations, because of the efficiencies and business opportunity presented for the applicant

- **Proximity of existing network infrastructure** and potential to efficiently extend that infrastructure
- **Geographic and topographic factors** such as mountains, highways, rivers, and railway lines that naturally define broadband infrastructure architecture because traversing them is complex and costly
- **Potential for competition** among applicants to submit competitive and attractive applications to serve those areas. Ideally, Project Area design will encourage competition among applicants and result in multiple bids.
- **Economic and technical viability and efficiency** in which OBAE's internal data, modeling, and engineering expertise will help to define the most economically viable grouping of unserved locations into a single geographic unit for bidding
- **Community needs** where possible to ensure that boundaries reflect unique local circumstances

OBAE will undertake the Project Area Unit design process once it has the final map of eligible locations that will result from the Challenge Process. The process will be conducted by OBAE while NTIA is doing its Challenge Process Validation and immediately in advance of release of the BEAD grant materials.

OBAE will make information regarding the Project Area Units available to potential applicants at the time of release of grant materials in the form of polygons, accompanied by lists of eligible locations. Applicants will be required to submit separate grant applications for each Project Area to enable OBAE to make like-to-like comparisons among applications and score competing applications for each Project Area Unit fairly.

5.7.1 [Service commitments related to Project Area Unit definition](#)

OBAE will require applicants to provide proposed pricing for service to 100 percent of unserved locations in the Project Area Unit.

In addition, OBAE will allow applicants to also propose to serve a lower percentage of unserved locations in each Project Area Unit.

This approach recognizes that, in every Project Area Unit, there may be individual locations that are so remote and hard to reach – with any terrestrial technology – that including those locations in an application may serve to make the area non-viable for applications at a cost that fits into the finite BEAD budget or may serve to reduce or eliminate the chance of any applications being received for that Project Area Unit.

For these reasons, OBAE will allow proposed pricing for less than 100 percent of eligible locations in a Project Area Unit, seeking alternative pricing to reach nearly all unserved locations in the Project Area Unit to increase the chances of funding the vast majority of unserved locations throughout the State with the best technology possible.

OBAE thus proposes that applicants could apply as follows:

- Applicants will be required to propose a grant amount to serve 100 percent of locations in any Project Area Unit for which they submit an application
- Applicants will also have the option of proposing a grant amount to serve a lower, Alternative Percentage of locations defined by OBAE and to provide a list of the locations they propose to remove from their grant obligations (along with their reason for excluding those locations)

OBAE will define the Alternative Percentage number on a custom basis for each Project Area Unit so that all applicants for that Project Area Unit will be applying based on the same percentages (100 percent and an alternative specified by OBAE).

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

Project Area Unit [number]	Percentage of eligible locations	Average cost per eligible location	Total requested grant funds for Project Area Unit
	100 percent (mandatory)	\$_____	\$_____
	[Alternative Percentage number] % (optional)	\$_____	\$_____
	[Alternative Percentage number] % (optional)	\$_____	\$_____

Applicants will be required to provide a list of any locations excluded from their service commitment, as well as related mapping data per OBAE’s specifications, so that applications can be scored and compared to each other.

This approach would allow for efficient comparison of proposals for each Project Area Unit, while creating as much competitive dynamic as possible for well-priced applications for as much as possible of each Project Area Unit. Applicants would have the freedom to propose to serve a

Project Area Unit at the lower percentage than 100 percent specified by OBAE but will also understand that they may be competing with applications that propose to serve a higher percentage of locations.

OBAE understands that this may result in proposals that vary significantly. Indeed, that varied pricing is part of OBAE's goal for this strategy as it will allow for the option of funding proposals to serve *many* unserved and underserved locations in a Project Area Unit if no cost-effective application is received for 100 percent of unserved locations. As a result, this strategy would provide a range of alternative options for how OBAE can use New Mexico's finite BEAD funds to reach as many unserved and underserved New Mexico locations as possible in the most efficient and impactful way.

So long as the pricing for 100 percent of locations is viable given the statewide need for funding, OBAE will make awards to applications that propose to serve 100 percent of locations. In the event that OBAE receives two or more identical proposals for identical Project Area Units, then OBAE will select the proposal with the highest score.

5.8 Approach to subsequent funding rounds if no proposals are received

As described above, in the event no proposal (or no viable proposal) is received for eligible locations, OBAE plans to undertake the following processes.

First, OBAE may negotiate with one or more applicants that have applied 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 OBAE. OBAE may choose to negotiate with one or more applicants to maximize the chances of determining a solution for those locations.

Second, OBAE anticipates that, depending on circumstances, it may choose to undertake a second (and possibly third) competitive process to formally attract applications for those locations.

Should no viable bid occur in the first two processes OBAE will add the unserved BSLs to the program for Low Earth Orbit or other alternative technology service along with the BSL removed in the Alternative Percentage.

5.9 Projects on Tribal lands

Pursuant to NTIA requirements, OBAE will not award any funds for a proposed project on Tribal lands without a Resolution of Consent from the Tribal Council or other governing body upon whose Tribal Lands the infrastructure will be deployed. OBAE will require official documentation from the Tribal government to be submitted with application.

Under NTIA rules, Tribal approval is a required element for any award. Furthermore, while lack of pre-application Tribal consent will not be a disqualifying factor, OBAE anticipates that the applicants will provide the required documents for Tribal Lands as part of their application. Should the documents not support the application, or they do not provide enough clarity from the Tribal government, OBAE will work with applicants during the Negotiation Phase of the grant program to cure applications and provide written support from Tribal authorities if such documents have not already been provided.

In the event that a presumptive awardee cannot provide documentation of support and approval from Tribal authorities, OBAE will use the Negotiation Process to engage with other applicants and to meet with Tribal authorities to understand their preferences.

5.10 Identifying the Extremely High Cost Per Location Threshold

OBAE 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. Based on both State and federal goals (and the federal requirement) to fund fiber-to-the-premises wherever possible, OBAE will prioritize an EHCPLT as high as possible to ensure greater fiber coverage.

OBAE will determine the EHCPLT through a process that will involve analysis of the full range of grant applications received. OBAE may also consult other data if necessary, including the Eligible Entity Planning Tool provided by NTIA; data developed by OBAE in the course of previous broadband grant programs; and OBAE's own cost model data, which is based on customized New Mexico cost considerations and a full business case analysis that considers capital costs, operating costs, and revenues over the appropriate time frame.

Based on all these inputs, OBAE will develop the EHCPLT in order to determine at what cost per unit (if any), fiber-to-the-premises is too costly to achieve the critical BEAD goal of achieving 100 percent broadband coverage with the funds provided in the BEAD allocation.

5.11 Utilizing the EHCPLT

Given federal requirements to achieve 100 percent broadband coverage statewide, while maximizing fiber-to-the-premises, OBAE proposes the following approach to the EHCPLT and negotiation processes:

1. OBAE will review applications to determine whether there exist sufficient funds to fund all the highest-scoring Priority Broadband applications for 100 percent coverage of all unserved locations in all Project Area Units. If this is the case, there will be no need for the EHCPLT. Again, this may not include those locations OBAE and/or the applicant makes a convincing case that fiber is not practicable due to exorbitant costs or other barriers.

2. If OBAE determines that there are insufficient funds, it will calculate the EHCPLT.
3. OBAE will then tentatively plan to provide awards to the highest-scoring 100 percent Priority Broadband application for each Project Area Unit for which the average grant cost per location is below the EHCPLT.
4. For those Project Area Units with Priority Broadband applications that are left, OBAE will evaluate the proposed pricing for the category of Alternative Percentages and will tentatively plan to provide awards to the highest-scoring application at the highest Alternative Percentage bid that falls below the EHCPLT.
5. For those Project Area Units that have no Priority Broadband Alternative Percentage proposals lower than the EHCPLT, OBAE may then negotiate with the Priority Broadband bidders to reduce their average per location proposal below the EHCPLT, affording the highest-scoring Priority Broadband applicant the opportunity to revise its proposal. If the applicant is unable to sufficiently reduce its cost per location, OBAE will then negotiate the same with the other applicant(s) for that Project Area Unit, in order of highest-scoring application.
6. For those Project Area Units for which it is not possible to secure through the process above awards for Priority Broadband technology, OBAE will then apply the same process to evaluate applications that propose an alternative, non-Priority Broadband technology that meets the BEAD Program's requirements for Reliable Broadband Service.
7. If it is not possible, through the process above, to secure awards for alternative, non-Priority Broadband technology that meet the BEAD Program's requirements for Reliable Broadband Service, OBAE will then apply the same process to evaluate applications for non-Priority Broadband technologies that do not meet the BEAD Program's requirements for Reliable Broadband Service (while otherwise satisfying the Program's technical requirements).
8. For all Project Area Units for which no satisfactory application can be funded, as well as for locations that are excluded from funding under the Alternative Percentages process, OBAE may undertake an additional grant round and seek alternative proposals or may otherwise seek alternative solutions for securing broadband to those areas and locations.

5.12 Requiring prospective subgrantees to certify their qualifications

OBAE will require potential subgrantees to demonstrate financial capability through a series of application questions and document requests. Applicant responses and documentation will be collected through an online portal that is part of OBAE's grants management platform. Documentation will then be analyzed to support an informed assessment of the potential

subgrantee's financial capability to meet the obligations of the project, maintain available funds to support the project, and demonstrate financial viability of the project.

OBAE's Prequalification Phase and its Scoring Phase application 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.

5.12.1 Officer certifications

As part of the Prequalification Phase, OBAE 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, OBAE will require certifications from the applicant that it will have sufficient financial resources to provide the pledged matching funding as required by the program rules. Applicants will also be required to certify that they will 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.

These certifications, along with the financial documentation discussed below, will provide OBAE with necessary assurances of the applicant's financial qualifications and capabilities.

5.12.2 Letter of credit

Note: On November 1, NTIA provided new guidance and a waiver regarding the letter of credit requirement.¹⁵ OBAE seeks public comment 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. OBAE plans to make available all of the letter of credit options newly created by the Limited Waiver, as well as any future expansions of that Limited Waiver or additional guidance.

¹⁵ "BEAD Letter of Credit Waiver," BroadbandUSA (NTIA), November 1, 2023, <https://broadbandusa.ntia.gov/funding-programs/policies-waivers/BEAD-Letter-of-Credit-Waiver>.

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 Notice of Funding Opportunity (Section (IV.D.2.a.ii)), OBAE will implement a letter of credit process using the framework adopted by the Federal Communications Commission for its Rural Digital Opportunities Fund program (47 C.F.R. §54.804(c)).

OBAE will have a model letter of credit posted 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 workshop and additional technical assistance outreach.

OBAE's letter of credit process will require program participants to satisfy three steps.

As part of the Prequalification Phase, OBAE 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 no less than 25 percent 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. OBAE 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 an irrevocable standby letter of credit from the previously committed financial institution.

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 90 days of the notification of the award and prior to the finalization of the final

award agreement. OBAE 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.

5.12.3 Financial statements

In addition to the certifications discussed above, OBAE will require potential subgrantees to submit documentation of their financial capabilities. During the Prequalification Phase, applicants will be required to submit one year 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 contain “qualifications” by the auditor, 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 applicant does not prepare audited financial statements in the ordinary course of business, it must describe the circumstances and reasons for the lack of audited financials and provide a year of financial statements that contain substantially the same level of detail and information. A Prequalification Phase applicant without audited financial statements must also commit to providing a year of audited financials within eight 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 provide similar information and that will allow OBAE 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 by the public entity must accompany the submitted financial documentation.

During the Scoring Phase, OBAE 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.

5.12.4 Financial sustainability

During the Scoring Phase, OBAE 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, OBAE will require applicants to complete and submit a budget narrative, proposed budget, and pro forma business case analysis. Applicants will be required to use provided templates for these submissions.

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

The budget narrative template requires applicants to provide a detailed breakdown of the expected budget for 11 standardized categories. Additionally, the narrative will require a description of each charge, the entity or team responsible for that budget expense (if applicable and if known), and how each category expenditure 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.

OBAE will require applicants to demonstrate that costs proposed for this grant program will be reasonable, allowable, allocable, and necessary to the supported activity. The Scoring Phase Application and Guide, as well as the Program Guide, will reference 2 CFR Part 200 for applicable administrative requirements and cost principles. These program materials will also discuss program objectives and describe the specific allowable and unallowable costs and activities. OBAE will provide additional technical assistance and Frequently Asked Questions materials to support this element of an applicant's showing.

Applicants will also submit templates to present a pro forma business case analysis to present their financial projections to demonstrate sustainability. These templates 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 also requests 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, OBAE can review the financial sustainability of each project in a more consistent, fair, and transparent manner.

OBAE 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. OBAE 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, OBAE will also accept additional documentation that gives applicants additional opportunity to present supplementary demonstration of financial sustainability tailored to the proposed project.

OBAE 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.

Optional Attachment: As an optional attachment, submit application materials related to the BEAD subgrantee selection process, such as drafts of the Requests for Proposals for deployment projects, and narrative to crosswalk against requirements in the Deployment Subgrantee Qualifications section.

5.12.5 Managerial capability

OBAE will require potential subgrantees to demonstrate managerial capability to successfully complete and support a BEAD funded broadband network. OBAE 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. OBAE 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.

5.12.5.1 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.

OBAE will expect participants to identify personnel in current roles such as officers and directors of the organization, executive level management, financial planning and strategy, technical design, risk management, human resources, equipment procurement, operations, and planning.

5.12.5.2 Organizational charts

In addition to resumes for key individuals within the organization, applicants will be required to submit detailed organizational charts of the organization's structure, key management personnel, and relevant operational teams. These charts will 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 Prequalification Phase participant should describe any recent or expected changes to the organization's structure, processes, and planning that may impact its BEAD project efforts.

5.12.5.3 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.

The applicant's narrative will also be required to 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 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 communication industry.

All applicants and partnerships must certify that there is no collusion, bias or conflict of interest or provide ownership and partnership disclosures as outlined in 47 CFR 1.2105(a). All applicants and partnerships must likewise disclose foreign interest if pertinent.

All applicants must certify that they will not engage in prohibited communications as defined in 47 CFR 1.2105(a) starting from the date of submission of preregistration application until final award.

5.12.5.4 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 its 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-unit buildings or utilize a unique construction technique, applicants should highlight the experience of the entity or its management personnel in those areas. OBAE will require information that demonstrates that the applicant has sufficient managerial capabilities to support a successful BEAD funded project, with specific reference to the uniqueness of the project.

5.12.6 Technical capabilities

During the Prequalification Phase, participants will be expected to demonstrate their technical capability to participate in the program and successfully complete a funded project. This showing will complement the applicant's management capabilities and will provide OBAE 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.

5.12.6.1 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 Mexico to conduct funded activities and comply with all post award obligations.

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.

OBAE will provide a list of required licenses and certifications as part of its Application Guide and Program Guide posted on its website and discussed during the Prequalification Phase workshop.

5.12.6.2 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 Mexico. 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 OBAE 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. New Mexico provided a list of these programs available to workers in the State as part of its Five-Year Action Plan and further discusses these programs in Section 9.

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.

5.12.6.3 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.

5.12.6.4 Scoring Phase – project-specific certifications

As part of the Scoring Phase application process, OBAE 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.

5.12.6.5 Scoring Phase – 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 section of the application (discussed in Section 5.3 of this Initial Proposal Volume II) 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, 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 OBAE 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, number of passings, and anticipated speeds and latency of the services to be offered over the completed network. A template for this requirement, hereinafter referred to as the Technical Specifications Template, will be provided in the application materials.
- 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. A template for this requirement, hereinafter referred to as the Project Timeline Template, will be provided in the application materials.
- 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.

OBAE 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.

OBAE 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, OBAE intends these showings to be complementary and not duplicative. Applicants can reference attachments and information provided in other parts of the application.

5.12.6.6 Certification of a Professional Engineer

To support OBAE’s own 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. OBAE will require that the certifying engineer holds all required professional licenses from the State of New Mexico.

OBAE will provide a sample certification as part of the application 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 program timelines.

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.

5.12.7 Compliance with applicable laws

OBAE’s Prequalification Phase will require participants to provide a legal opinion by an attorney licensed in New Mexico 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, OBAE will reference the types of laws that Prequalification participants must consider, including federal procurement laws such as applicable Buy American requirements, 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 OBAE or NTIA may develop. OBAE 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, OBAE will require compliance with the most stringent obligations and requirements to the extent those obligations are not preempted by applicable federal law.

OBAE will also require Prequalification Phase participants to provide a narrative description of the processes they have in place to conduct funding 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.

OBAE will further require participants in the Prequalification Phase to certify that the organization has, 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.

As part of this showing, OBAE 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.

5.12.8 Organizational capability

5.12.8.1 Experience offering voice and broadband services

During the Prequalification Phase, OBAE 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 Prequalification Phase participants referenced operations in other states as part of its demonstration of managerial, technical, or operational capabilities, the organization 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 and parent organization.

5.12.8.2 Compliance with FCC regulations

Prequalification participants will also be required to provide a separate certification that they are in compliance with any applicable federal laws and regulations implemented by the Federal Communications Commission (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.

If the participant cannot provide the required certification regarding these 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 applicable FCC regulations, and a description of any efforts by the organization to cure the noncompliance or violations of the applicable regulations.

5.12.8.3 Electric service providers and new entrants

If the Prequalification Phase participant is a provider of electricity transmission or distribution of services with less than two years of experience offering communications services or is an entity that 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 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 services providers with less than two years of experience offering communications services 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 stakeholders with relevant operational expertise, to the extent that they cannot demonstrate that they have already acquired those capabilities.

5.12.9 Ownership information

During the Prequalification Phase, OBAE will require participants to document their ownership structure and shareholder interests pursuant to federal regulations developed for specific funding and auction programs implemented by the Federal Communications Commission that can be found at 47 C.F.R. §1.2112(a)(1)-(7). OBAE 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). Consortiums and partnership applications will need to provide ownership information for all participating entities in the consortium or partnership. 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.

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 partners and shareholders with more than a 10 percent ownership interest.

For participants that report to the FCC, OBAE will review the submitted information to determine that it matches the information submitted by organizations 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.

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

This requirement is critical for OBAE, and NTIA, to uphold their commitments to fairness and transparency under the BEAD program. Ownership information for each prospective subgrantee will allow OBAE to have a full and complete picture of the 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.

5.12.10 Information on other public funding

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

OBAE will assess this information to better understand the participant's experience and knowledge regarding publicly grant funded 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, CAF), OBAE's broadband grant programs such as the Connect New Mexico Fund, as well as any State or local universal service or broadband deployment funding program.

As part of the Prequalification Phase, OBAE will provide a template, hereinafter referred to as the Other Public Funding Template, that participants must complete. Participants will be required to use the Other Public Funding Template to provide the requested information for each publicly funded broadband deployment project where the participant is planning to submit an application 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, OBAE 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

6. Non-deployment subgrantee selection (Requirement 9)

This section outlines non-deployment eligible activities OBAE may support using BEAD Program funds.

OBAE does not anticipate having non-deployment subgrantees. The State's estimate to provide universal service exceeds its BEAD allocation, so OBAE does not anticipate having additional funds for other items.



If, however, the State has additional funds after provisionally issuing the broadband grants, it would like to first prioritize additional middle-mile broadband infrastructure that the State needs. If any funds remain, the State will plan to fund non-deployment activities with its remaining funding. As the digital divide encompasses not just access to internet services but also the adoption and meaningful use of those services, OBAE will prioritize digital equity initiatives that will be developed through ongoing community engagement and development of the Digital Equity Act Plan. Consistent with the BEAD Notice of Funding Opportunity, OBAE will consider supporting additional nondeployment activities, by way of example and not limitation:

- Increase the broadband adoption rate (percentage of households that subscribe to and use the internet)
- Enhance digital skills among New Mexico residents
- Improve telehealth access
- Improve distance learning access
- Foster digital equity through libraries, chapter houses, senior centers, community centers, and community anchor institutions by encouraging access to computers, the internet, and digital skills programs
- Increase consumer knowledge of internet privacy and security
- Encourage affordable broadband offerings by ISPs, including low-cost plans for lower-income households
- Ensure accessibility of public websites for people with disabilities

7. Eligible Entity implementation activities (Requirement 10)

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

Because New Mexico’s estimated cost for universal service exceeds its BEAD allocation, the State is not proposing any new initiatives. However, if New Mexico has funds remaining after funding all unserved, underserved, and CAI locations, the State will consider funding middle mile-broadband fiber broadband projects consistent with its priorities. The State may also evaluate whether to fund non-deployment priorities itself through existing State programs. OBAE may work with other agencies to support programs that include workforce development related to the deployment of broadband, digital equity, or broadband adoption activities, and mapping or data collection.

OBAE has only 365 days to oversee multiple rounds of funding in order to finalize its plans to issue provisional grants designed to deploy broadband infrastructure to all unserved and if possible, all underserved locations. Given the limited time to administer the State’s challenge process and manage multiple rounds of grants to maximize BEAD funding to unserved and underserved locations, the State is not likely to know if there are remaining funds until late in its Final Proposal process. As such, OBAE will maximize the use of any remaining funds toward the activities noted above in Section 6, Non-deployment subgrantee selection (Requirement 9), through existing State agencies and programs.

Additionally, the State plans to implement key grant activities without issuing a subgrant. These activities include:

- General administration of the BEAD award
- Oversight of BEAD subgrant applications and issuance
- Other BEAD management processes such as:
 - Implementing BEAD implement the challenge process
 - Managing the processes for subgrantee applications and issuance
 - Obtaining software to manage both processes
 - Overseeing subgrantee compliance

8. Labor standards and protection (Requirement 11)

This section explains how OBAE will account for and oversee subgrantee adherence to federal labor and employment laws that mandate minimum safety, wage, anti-discrimination, and other workplace standards for all businesses in the United States.

8.1 Specific information that prospective subgrantees will be required to provide in their applications and how the Eligible Entity will weigh that information in its competitive subgrantee selection processes

In the application, and as part of the prequalification process, OBAE will require the following from all applicants:

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, or any other applicable labor and employment laws for the preceding three years, or
 - Disclosure of any findings of such violations
2. Certification that the potential subgrantee, and its proposed contractors and subcontractors, have existing labor and employment practices in place and that the subgrantee will recertify this annually for the duration of the BEAD implementation period, including:
 - Applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction of the network
 - Certification that the potential subgrantee will ensure the implementation of workplace safety committees that are authorized to raise health and safety concerns in connection with the delivery of deployment projects and that the applicant will recertify this annually for the duration of the BEAD implementation period
3. Discussion of the potential subgrantee's workforce plan, including information on training and safety, job quality, local hire and targeted hire, accountability and subcontracting practices, and ongoing operational workforce

4. Discussion of current and planned future practices regarding using a directly employed workforce, robust in-house training, wages and benefits, and a locally based workforce
5. Current and planned future practice regarding public disclosure of workforce plans and labor commitments on a website or online portal
6. Discussion of job quality considerations as part of the applicant's workforce development strategies
7. Discussion of track record and commitment to maintaining high standards of workplace safety practices, training certification or licensure for all relevant workers, and compliance with State and federal workplace protections
8. Certification of compliance with relevant workplace protections including the Occupational Safety and Health Act, the Fair Labor Standards Act, Title VII of the Civil Rights Act of 1964, and New Mexico labor and employment laws
9. Discussion of whether the construction workforce will be directly employed or subcontracted, the anticipated size of the workforce required to carry out the proposed work, a description of plans to maximize use of local or regional workforce, and a description of the expected workplace safety standards and training to ensure the project is completed at a high standard

With respect to all materials and information provided, OBAE 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?

Based on OBAE's evaluation of these considerations, the applications will be placed into two categories: (1) for those categories that are deemed complete and sufficient and do not raise any concerns, points will be awarded pursuant to the scoring rubric; (2) for those applications that raise concerns based on omissions or other indications, OBAE will provide clarifying questions to the applicant in writing while affording seven calendar days for the applicant to respond and, upon receipt of the responses, then award points pursuant to the scoring rubric.

8.2 Binding legal commitments in subgrants related to labor standards and protection

Following an award, successful Applicants will be required to submit ongoing workforce reports which shall be incorporated as material conditions of their subgrant from OBAE. The Applicants' representations in the Workforce Plan section of their application will become binding commitments upon award of a subgrant, and the subgrantees will be subject to regular reviews to ensure compliance.

In the event that successful applicants fail to meet the Program Requirements or Workforce Plan Data requirements, or otherwise falsify information regarding such requirements, OBAE shall investigate the failure and issue an appropriate action allowable by law.

To encourage public confidence in the program, Applicants' disclosures responding to the workforce criteria will be publicly available on OBAE's website.

Subgrantees shall be required to provide in regular reports the below information. This information may be anonymized and aggregated to protect individual privacy:

- Whether the workforce will be directly employed by the subgrantee/ISP or whether work will be performed by a subcontracted workforce
- The entities that the subgrantee plans to subcontract with in carrying out the proposed work, if any
- The job titles and size of the workforce (full-time employee (FTE) positions) required to carry out the proposed work over the course of the project
- For each job title required to carry out the proposed work, a description of wages, benefits, applicable wage scales including overtime rates and a description of how wages are calculated
- Any in-house training program, including whether the training program is tied to titles, uniform wage scales, and skill codes recognized in the industry; Safety training, certification, and/or licensure requirements, including whether employees are required to have completed Occupational Safety and Health Administration (OSHA) safety training or any training required by law

9. Workforce readiness (Requirement 12)

New Mexico’s success in executing broadband deployments under the BEAD program will require unprecedented collaboration across the public, private, and nonprofit sector, especially when it comes to fostering a well-trained and diverse New Mexico workforce. This section explains how OBAE will ensure an available, diverse, and highly skilled workforce.

This section outlines the workforce needs that will be created by the spending on broadband construction under the BEAD program, and separately, the BEAD program combined with the simultaneous spending on broadband enabled by Capital Projects Fund (CPF) resources. This section then outlines the State’s approach to helping foster a robust, diverse workforce, documents how OBAE intends to meet the labor and workforce requirements in the BEAD NOFO, and describes how BEAD deployments will work in concert with the State’s long-term economic development goals.

9.1 Establishing a baseline for the broadband construction sector in New Mexico

According to a 2021 Brookings report, “How federal infrastructure investment can put America to work,” the workforce clusters involved in broadband deployment are represented by the following North American Industry Classification System (NAICS) categories:

- *Power and Communication Line and Related Structures Construction*
- *Fiber Optic Cable Manufacturing*
- *All Other Electrical Equipment and Component Manufacturing*
- *Cable and Other Subscription Programming*
- *Wired Telecommunications Carriers*
- *Wireless Telecommunications Carriers*¹⁶

The following table, generated using data from the economic and labor market modeling tool Lightcast,¹⁷ outlines the performance of these subsectors that are directly employed in telecommunications in New Mexico from 2018 to 2022. (Note: The data nomenclature used by

¹⁶ The Broadband Deployment Sector is defined by the March 2021 Brookings Report, “How Federal Infrastructure Investment Can Put America to Work,” <https://www.brookings.edu/articles/how-federal-infrastructure-investment-can-put-america-to-work/>. These industries were originally identified by Pollin, et al. in the October 2020 report, “Impacts of the Reimagine Appalachia & Clean Energy Transition Programs for Ohio” from the Political Economy Research Institute at the University of Massachusetts, Amherst, <https://reimagineappalachia.org/wp-content/uploads/2020/10/Pollin-et-al-OHIO-Reimagine-Appalachia-and-Clean-Energy-Programs-10-19-20.pdf>.

¹⁷ Lightcast, <https://lightcast.io/>.

the NAICS changed between the publication of the 2021 Brookings report and now; the category formerly called *Cable and Other Subscription Programming* is now called *Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers.*)

Table 3: Performance of New Mexico’s broadband deployment sector (2018 to 2022)

NAICS	Industry	2018 jobs	2022 jobs	2018 - 2022 change	2018 - 2022 % change	Avg earnings per job – New Mexico	Avg earnings per job – national
237130	Power and Communication Line and Related Structures Construction	1,502	1,838	336	22%	\$83,484	\$108,440
335921	Fiber Optic Cable Manufacturing	0	0	0	0%	\$0	\$109,335
335999	All Other Electrical Equipment and Component Manufacturing	230	220	-10	-4%	\$65,157	\$122,081
516210	Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	184	66	-118	-64%	\$96,108	\$239,987
517111	Wired Telecommunications Carriers	1,813	1,402	-411	-23%	\$94,417	\$126,979
517112	Wireless Telecommunications Carriers (except Satellite)	3,158	2,045	-1,113	-35%	\$80,759	\$126,584
	Total	6,887	5,571	-1,316	-19%	\$84,662	\$147,794

Source: Lightcast Datarun 2023.3

There has been significant dynamism within New Mexico’s broadband deployment sector in the past five years, and the data suggest a few notable trends:

- The growth in *Power and Communication Line and Related Structures Construction* roles suggests ongoing active construction or utility repair in the State, and functioning mechanisms for training and hiring new workers in the field.
- The decline in both *Wired* and *Wireless Telecommunications Carriers* is likely the result of a number of factors, which may include an increased use of technology in ISP operations resulting in less reliance on people, or simply an increase in retirements in the industry, among other factors.

- The relative lack of manufacturing roles, and substantial time it takes to increase manufacturing capacity and facilities in the State, indicates that few if any of the fiber or electronic components required to build networks will be produced in sum or in part in New Mexico.

Overall, the State saw a reduction of over 1,300 jobs in industries related to broadband deployment during this timeframe, which was significantly greater than national trends. New Mexico saw a 19 percent reduction in the broadband deployment workforce, while the same sector shrank by 4 percent nationally over the same timeframe.

The State lags behind the nation with earnings as well; New Mexicans in the broadband deployment sector tend to make significantly less than national averages for the same categories, which may have impacts on worker attraction and retention.¹⁸ In fact, multiple stakeholders interviewed during the process noted that companies need to be prepared to pay regionally competitive wages to newly trained recruits so that recruits don't leave seeking higher wages. One stakeholder noted that if companies aren't prepared to pay their new trainees competitive wages, then they will essentially be "training someone else's workforce."

9.2 Estimating the impact of BEAD on broadband construction jobs

This analysis estimates that the construction spending due to the BEAD program will be approximately \$810 million, reflective of the entire BEAD allocation for New Mexico plus 20 percent. Because the construction is happening with significant overlap, this analysis also adds in anticipated spending in the State from Capital Projects Fund dollars directed to broadband—projected to be about \$141 million including match. Taken together, the BEAD and CPF investment is expected to be approximately \$951 million.

(The ultimate amount spent on construction may be higher or lower depending on how much match can be catalyzed for each deployment—with some projects including 25 percent match or more, and some high-cost areas potentially necessitating much lower match; however, \$951 million in construction spending is proportionally accurate for the analysis at this time.)

¹⁸ Lightcast Datarun 2023.3.

Based on the Brookings research cited above, broadband construction activities are expected to be allocated in the following proportions across the following relevant industry sectors.^{19,20}

Table 4: Anticipated distribution of broadband investment across sectors

NAICS	Industry	Weight
237130	Power and Communication Line and Related Structures Construction	25%
335921	Fiber Optic Cable Manufacturing	10%
335999	All Other Electrical Equipment and Component Manufacturing	15%
516210	Media Streaming Distribution Services, Social Networks, and Other Media Networks and Content Providers	10%
517111	Wired Telecommunications Carriers	20%
517112	Wireless Telecommunications Carriers (Except Satellite)	20%

Using the anticipated impact across sectors, an input-output methodology with the modeling tool Lightcast was used to understand and analyze the workforce needs based on anticipated broadband spending.

9.2.1 Broadband construction spending will require New Mexico to grow their broadband construction workforce by hundreds of jobs

Though many occupation categories may be involved in broadband deployment in some form or another, this analysis focuses on 12 occupational categories required to deploy broadband, identified by the Brookings article cited above. The following table estimates the numbers of workers needed in those categories to execute on a \$810 million or a \$951 million investment in broadband construction, and the proportional increase in workforce needed for each occupation.

¹⁹ The distribution of how this investment across broadband industries was based on the work of the Brookings Report, “How Federal Infrastructure Investment Can Put America to Work,” by Escobari, Gandhi, and Strauss, from June 2021, <https://www.brookings.edu/wp-content/uploads/2021/03/Federal-infrastructure-investment.pdf>. It cites, Pollin, R. and Chakraborty, S., “Job Creation Estimates Through Proposed Economic Stimulus Measures,” Political Economy Research Institute, University of Massachusetts, Amherst (PERI at University of Massachusetts Amherst), September 11, 2020, <https://peri.umass.edu/publication/item/1297-job-creation-estimates-through-proposed-economic-stimulus-measures>.

²⁰ Robert Pollin, Jeannette Wicks-Lim, Shouvik Chakraborty, and Gregor Semieniuk. “Impacts of the Reimagine Appalachia & Clean Energy Transition Programs for Ohio: Job Creation, Economic Recovery, and Long-Term Sustainability,” PERI at University of Massachusetts Amherst, October 2020, https://peri.umass.edu/images/OhioGreenGrowth_101920_FINAL_230.pdf, p. 107.

Table 5: Estimated workforce requirements for broadband deployment occupations

Occupation	Currently employed in New Mexico	\$810 million investment		\$951 million investment	
		New workers needed	% increase	New workers needed	% increase
Project Management Specialists	4,331	41	0.95%	49	1.13%
Business Operations Specialists, All Other	7,248	28	0.39%	32	0.44%
Software Developers	2,688	21	0.78%	24	0.89%
Software Quality Assurance Analysts and Testers	437	3	0.69%	3	0.69%
Electronics Engineers, Except Computer	838	12	1.43%	14	1.67%
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	3,304	63	1.91%	72	2.18%
Customer Service Representatives	20,209	124	0.61%	145	0.72%
Construction Laborers	11,597	360	3.10%	425	3.66%
First-Line Supervisors of Mechanics, Installers, and Repairers	3,125	71	2.27%	84	2.69%
Telecommunications Equipment Installers and Repairers, Except Line Installers	1,099	108	9.83%	127	11.56%
Electrical Power-Line Installers and Repairers	818	98	11.98%	115	14.06%
Telecommunications Line Installers and Repairers	354	74	20.90%	87	24.58%

Source: Lightcast Datarun 2023.3

Because this chart is based on job classifications regardless of industry (as in, inclusive of more industries than just those in the broadband deployment sector), there are significantly more employees noted for each job category than in the previous chart, which only included workers employed at broadband deployment-related businesses. For example, a significant number of lineworkers may be working for electric utilities rather than telecommunications companies. However, this chart gives perspective as to the pool of people who could be drawn upon to work—and which categories may be hardest to supply as a percentage of the existing workforce. For example, in the \$951 million construction scenario *First-Line Supervisors of Mechanics, Installers, and Repairers* and *Telecommunications Line Installers and Repairers* will need approximately the same amount of new people (84 and 87, respectively), but as a percentage,

Telecommunications Line Installers and Repairers will need to grow by much more, suggesting that it may be significantly harder to fill those roles.

Another factor that impacts how difficult it will be to grow the net workforce in a particular category is how concentrated that workforce is relative to a national baseline in a particular area. When there are notable existing higher-density clusters, not only is filling roles easier with the existing workforce, but there is more possibility for specialization, mentorship, and even recruitment due to an increased visibility in the community. To demonstrate this, a Location Quotient (LQ) analysis is used to show the relative concentration of an occupation compared to national averages, and as such, which roles may be especially hard to fill. An LQ of 1.00 means an occupation is exactly as concentrated in a region as it is in the whole country. An LQ higher than 1.00 means there is a higher concentration of that occupation in the region (and thus more opportunity for specialization, and more resilience when an influx of these occupations is needed, and more of an existing network in the community), while an LQ less than 1.00 represents a lower concentration (and therefore could be considered a greater scarcity issue in times of occupational need).

Table 6: Occupations needed for broadband deployment (by percentage increase required)

Occupation	Percent occupational increase required	Location quotient
Telecommunications Line Installers and Repairers	24.58%	0.59
Electrical Power-Line Installers and Repairers	14.06%	1.21
Telecommunications Equipment Installers and Repairers, Except Line Installers	11.56%	1.18
Construction Laborers	3.66%	2.07
First-Line Supervisors of Mechanics, Installers, and Repairers	2.69%	1.01
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	2.18%	0.55
Electronics Engineers, Except Computer	1.67%	1.37
Project Management Specialists	1.13%	0.92
Software Developers	0.89%	0.31
Customer Service Representatives	0.72%	1.27
Software Quality Assurance Analysts and Testers	0.69%	0.39
Business Operations Specialists, All Other	0.44%	1.18

Source: Lightcast Datarun 2023.3

While some of these impacted occupations are at or above national levels of concentration, there are several that are well below, indicating those roles may also be especially hard to fill as more broadband deployment demand is generated across the country. Of particular concern are *Telecommunications Line Installers and Repairers (LQ of 0.59)*. A number of office jobs including *Sales Representatives of Services (LQ of 0.55)* and *Software Quality Assurance Analysts and Testers (LQ of 0.39)*, and *Software Developers (LQ of 0.31)* also have very low Location Quotients, however, these jobs can be more easily done remotely. While hiring these roles with New Mexico residents is advantageous for the New Mexico economy, it is more viable to hire them from out of state if needed.

9.2.2 Characteristics of key workforce categories

Understanding how to create a robust workforce across key categories requires understanding important characteristics of those job categories such as the average earnings, change in number of employees over the past few years, and importantly, the turnover rate. High turnover rates, which could be represented by people switching jobs or retiring—both of which are trends in parts of the broadband deployment sector—impact the efficiency of organizations by requiring more frequent hiring and training and losing employees with context and experience. The chart below outlines important characteristics of the occupations identified as in need of critical workforce attention.

Table 7: Characteristics of key occupations impacted by broadband investment

Occupation	Currently employed in New Mexico	2018 - 2022 % change	Median annual earnings	Annual turnover rate
Project Management Specialists	4,331	89%	\$96,429	51%
Business Operations Specialists, All Other	7,248	35%	\$72,176	45%
Software Developers	2,688	8%	\$100,755	32%
Software Quality Assurance Analysts and Testers	437	-14%	\$79,997	38%
Electronics Engineers, Except Computer	838	-11%	\$122,678	22%
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	3,304	-18%	\$52,146	77%
Customer Service Representatives	20,209	8%	\$35,048	101%
Construction Laborers	11,597	11%	\$35,797	98%
First-Line Supervisors of Mechanics, Installers, and Repairers	3,125	15%	\$64,792	56%

Occupation	Currently employed in New Mexico	2018 - 2022 % change	Median annual earnings	Annual turnover rate
Telecommunications Equipment Installers and Repairers, Except Line Installers	1,099	-8%	\$63,170	52%
Electrical Power-Line Installers and Repairers	818	3%	\$63,315	49%
Telecommunications Line Installers and Repairers	354	88%	\$60,154	59%

Source: Lightcast Datarun 2023.3

While many of these occupations have seen growth from 2018 to 2022, several occupations have contracted in numbers, particularly *Sales Representatives of Services, Software Quality Assurance Analysts and Testers, Electronics Engineers, and Telecommunications Equipment Installers and Repairers*. This could be due to retirements, technology changes rendering some jobs obsolete, reclassification of occupations, contractions in the industry, or wages that are lower than national averages, causing outward migration. While some workers may be enticed back out of retirement, or brought back into the industry despite a previous contraction, a large number are likely out of the sector for good.

Turnover rates also give context for how often employees in each occupation are moving to different employers. High rates of turnover in certain categories should not be a cause for alarm, but instead generally indicate occupations where contract work is most common, such as seasonal work in construction and other occupations related to broadband deployment. To some extent, turnover also illustrates there are opportunities for employment elsewhere with a similar skill set and is a sign of a strong job market. However, the intensity and physical demands of broadband construction jobs are inevitable, and so higher turnover rates are to some extent unavoidable.

9.2.3 Workforce qualification requirements

The following chart outlines qualification requirements for the 12 key broadband deployment occupations, along with typical education and work experience requirements, and typical amount of on-the-job training required to be proficient.

Table 8: Work experience of occupations impacted by broadband investment

Occupation	Typical entry-level education	Work experience required	On-the-job training required
Project Management Specialists	Bachelor’s degree	None	None
Business Operations Specialists, All Other	Bachelor’s degree	None	None

Occupation	Typical entry-level education	Work experience required	On-the-job training required
Software Developers	Bachelor’s degree	None	None
Software Quality Assurance Analysts and Testers	Bachelor’s degree	None	None
Electronics Engineers, Except Computer	Bachelor’s degree	None	None
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	High school diploma or equivalent	None	Moderate-term
Customer Service Representatives	High school diploma or equivalent	None	Short-term
Construction Laborers	No formal educational credential	None	Short-term
First-Line Supervisors of Mechanics, Installers, and Repairers	High school diploma or equivalent	Less than 5 years	None
Telecommunications Equipment Installers and Repairers, Except Line Installers	Postsecondary nondegree award	None	Moderate-term
Electrical Power-Line Installers and Repairers	High school diploma or equivalent	None	Long-term
Telecommunications Line Installers and Repairers	High school diploma or equivalent	None	Long-term

Source: Lightcast Datarun 2023.3

A key workforce strategy for filling new roles, retaining existing employees, marketing career opportunities to new recruits, and leveraging on-the-job training opportunities is to define career pathways. Occupations that require more experience and qualifications can sometimes be filled by promotions, thereby transferring the process of bringing new people into the industry to roles that require less previous experience or fewer qualification requirements.

For example, a customer service representative will naturally learn the essential terminology, basic structure of an ISP and broadband network, and customer-facing soft skills through working in a customer service environment and responding to customer calls. With the right lexicon and skills honed virtually, the training required to then start doing in-home installations becomes less onerous than training someone with no experience in ISP customer service. From there, that worker may wish to seek more training and transition again to various forms of higher-paid

outside plant (OSP) work—such as fiber splicing—and after a few years, may become a supervisor of an OSP team.

9.2.4 Current unemployment metrics

Though unemployment numbers are only aggregated at more general occupation classification levels, some inferences can be made as to how current unemployment numbers may impact ability to fill open positions in broadband construction.

The chart below outlines the total number of unemployed workers in New Mexico by major occupation category, the share of all unemployed people in New Mexico represented by that category, and the comparable percentage of all unemployed people in that category for the nation. In other words, while 10 percent of unemployed people in New Mexico are from the *Construction and Extraction* occupations, 13 percent of people nationally who are unemployed are from that category, showing a proportionally smaller availability of those workers in New Mexico compared to the nation.

Table 9: Unemployment for occupations impacted by broadband investment

Occupation	Unemployed in New Mexico (April 2023)	Percent of State unemployment	Percent of national unemployment
<u>Business and Financial Operations Occupations</u> Project Management Specialists Business Operations Specialists, All Other	1,045	4%	6%
<u>Computer and Mathematical Occupations</u> Software Developers Software Quality Assurance Analysts and Testers	481	2%	3%
<u>Architecture and Engineering Occupations</u> Electronics Engineers, Except Computer	329	1%	1%
<u>Sales and Related Occupations</u> Sales Representatives of Services	1,896	6%	8%
<u>Office and Administrative Support Occupations</u> Customer Service Representatives	3,774	13%	13%
<u>Construction and Extraction Occupations</u> Construction Laborers	2,863	10%	13%

Occupation	Unemployed in New Mexico (April 2023)	Percent of State unemployment	Percent of national unemployment
<u>Installation, Maintenance, and Repair Occupations</u> First-Line Supervisors of Mechanics, Installers, and Repairers Telecommunications Equipment Installers and Repairers Electrical Power-Line Installers and Repairers Telecommunications Line Installers and Repairers	1,319	4%	4%

Source: Lightcast Datarun 2023.3

This analysis suggests that in New Mexico, all of the roles associated with broadband construction have equivalent or lower rates of proportional unemployment than the nation, indicating that filling these roles with the pool of currently unemployed individuals will be as hard, or harder, than it will be on average across the nation.

Staffing shortages can also be examined via job postings. The chart below outlines average monthly postings versus average monthly hires. Hiring data are calculated using a combination of Lightcast jobs data, information on separation rates from the Bureau of Labor Statistics (BLS), and industry-based hiring data from the Census Bureau.

Table 10: Occupations impacted by broadband investment, job postings vs. hires (2022)

Occupation	Avg. monthly postings (Jan – Dec 2022)	Avg. monthly hires (Jan – Dec 2022)
Project Management Specialists	86	212
Business Operations Specialists, All Other	31	313
Software Developers	237	140
Software Quality Assurance Analysts and Testers	33	22
Electronics Engineers, Except Computer	16	20
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	43	264
Customer Service Representatives	380	1,636

Occupation	Avg. monthly postings (Jan – Dec 2022)	Avg. monthly hires (Jan – Dec 2022)
Construction Laborers	87	989
First-Line Supervisors of Mechanics, Installers, and Repairers	75	170
Telecommunications Equipment Installers and Repairers, Except Line Installers	30	53
Electrical Power-Line Installers and Repairers	8	36
Telecommunications Line Installers and Repairers	16	26

Source: Lightcast Datarun 2023.3

One challenge of using job postings alone to quantify the hiring gaps is that hiring does not happen on a 1:1 ratio with postings. Within many occupations, more hiring is happening than job postings are listed, suggesting that hiring occurs via direct recruitment, re-hires, contractors, unions, career fairs, or directly from training or educational programs. In addition, it is common for large firms to use one posting to hire multiple roles at the same position and at the same time. That said, postings and hiring are a useful way to understand almost in real time what specific roles are the most sought after, and the pace at which openings are being filled, across New Mexico.

9.2.5 Current training programs at public institutions in New Mexico

Developing a diverse and highly skilled workforce to meet the needs above requires a coordinated effort across the public and private sector. There are numerous examples of technical colleges that have created and grown programs to meet the needs of the construction workforce. Notable national examples that can be used as case studies for their innovative approaches include the Broadband Academy at Northwood Technical College²¹ in Rice Lake, Wisconsin, and Bossier Parish Community College Fiber Technician Boot Camp²² in Bossier Camp, Louisiana; however, robust training programs at public institutions are also present in New Mexico already.

²¹ “Broadband Academy,” Northwood Technical College, <https://www.northwoodtech.edu/continuing-education-and-training/professional-development/broadband-academy>.

²² “Case Study: Bossier Parish Community College | Fiber Optic Technician Bootcamp in Bossier Camp, Louisiana,” Internet For All, June 9, 2023, <https://www.internetforall.gov/blog/case-study-bossier-parish-community-college-fiber-optic-technician-bootcamp-bossier-camp-0>.

The following is a list of institutions and relevant graduates generated by accessing the Integrated Postsecondary Education Data System (IPEDS).²³

Table 11: Broadband workforce training programs at public higher education institutions

Institution	Degrees	Associated occupations	County	Number of degrees granted in 2022
Central New Mexico Community College	Customer Service Support/Call Center/Teleservice Operation	Customer Service Representatives	Bernalillo County	34
Clovis Community College	Operations Management and Supervision	First-Line Supervisors of Mechanics, Installers, and Repairers	Curry County	1
Eastern New Mexico University-Roswell Campus	Retailing and Retail Operations	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	Chaves County	7
Navajo Technical University	Electrical and Electronics Engineering	Electronics Engineers, Except Computer	McKinley County	1
New Mexico Institute of Mining and Technology	Electrical and Electronics Engineering	Electronics Engineers, Except Computer	Socorro County	22
New Mexico State University – Doña Ana Community College	Lineworker	First-Line Supervisors of Mechanics, Installers, and Repairers; Electrical Power-Line Installers and Repairers	Doña Ana County	13

²³ Because the IPEDs data is collected using Classification of Instructional Programs (CIP) codes rather than the NAICs classification, a CIPs to NAICs crosswalk was used to identify programs training workers relevant to broadband deployment occupations.

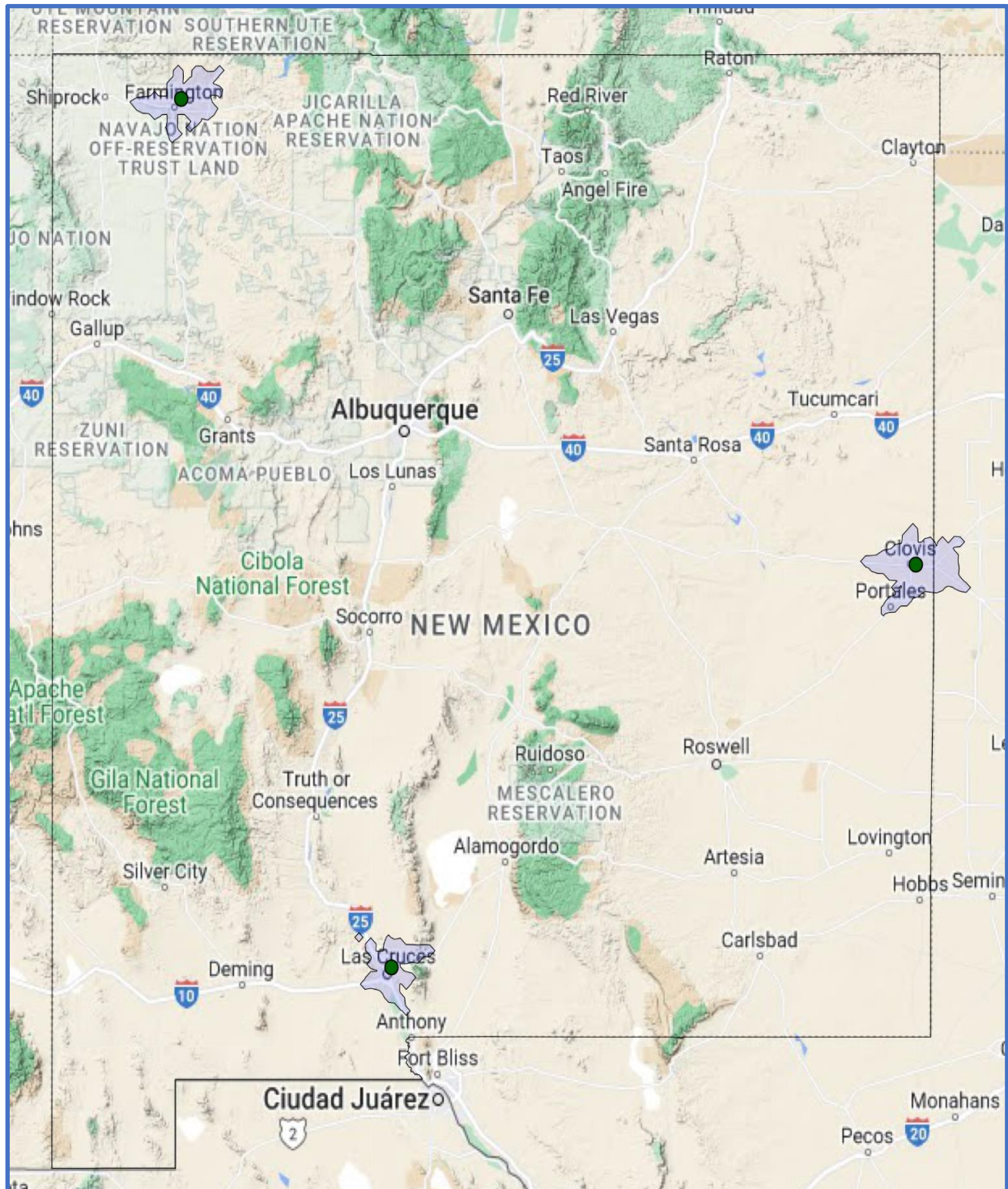
Institution	Degrees	Associated occupations	County	Number of degrees granted in 2022
New Mexico University- Main Campus	Electrical and Electronics Engineering	Electronics Engineers, Except Computer	Doña Ana County	66
University of New Mexico- Main Campus	Electrical and Electronics Engineering	Electronics Engineers, Except Computer	Bernalillo County	51

Though these data do not capture graduates from private training programs, technical high schools, or public post-secondary programs that are currently being planned or have been implemented after the most recent year of available data (such as the Certified Fiber Optics Technician program at Santa Fe Community College (SFCC)),²⁴ it does give an indication of the long-standing programs in the State that are producing trainees able to fit into certain roles.

Another important aspect to consider with training programs is their geographic distribution around the State. While some professions related to broadband construction, like *Fiber Network Engineers* (which are produced under the *Electrical and Electronics Engineering* category), can very effectively operate remotely, others, like lineworkers and installers, are most valuable if they are available across the State to reduce travel and better achieve local hiring goals. To illustrate potential geographic gaps in training, the following map shows a 30-minute drive time around public institutions that are producing trainees that may be needed for field work.

²⁴ “SFCC, Santa Fe County and NM Workforce Connection announce applications open for free training bootcamp to become a Certified Fiber Optics Technician,” SFCC press release, January 13, 2023, <https://www.sfcc.edu/press/sfcc-santa-fe-county-and-nm-workforce-connection-announce-applications-open-for-free-training-bootcamp-to-become-a-certified-fiber-optics-technician-2/>.

Figure 2: Thirty-minute drive time around New Mexico institutions training roles relevant to fieldwork during broadband construction²⁵



²⁵ Sources: 2022 IPED; drive time derived using OpenStreetMap; base map © 2020 Google.

Building networks in the rural parts of the State may require importing construction labor to the community, due to the workforce distribution in New Mexico based on population centers and, to some extent, as evidenced above, the locations of training programs. Though this is a common practice in broadband deployment, it does increase the cost of construction via the expense of transportation and lodging. Encouraging the training of skilled workers in communities across the entire State will be an important strategy to mitigate the need for these extra expenses.

9.3 Continuing to support workforce development in New Mexico

Even as the constellation of higher education institutions and private training providers are producing qualified workers, New Mexico still endeavors to play an active role in ensuring that the State's workforce is ready to meet the needs of the BEAD deployment by actively working to increase the scale of the qualified, diverse workforce in the State.

First, OBAE affirms a few strategies employed in the industry, including best practices demonstrated by the training providers locally and nationally noted above. These best practices are critical to combatting worker shortages, retention challenges, and steadily increasing retirement due to an aging workforce, all of which are present in much of the broadband construction sector.

- **Apprenticeships and on-the-job training programs:** Apprenticeship models for industries where apprenticeships exist (i.e., for electricians and for lineworkers, such as those offered by the Communications Workers of America or International Brotherhood of Electrical Workers), as well as on-the-job training programs for all industries, provide benefits to both employees and employers. Employers can train people in their systems correctly from the beginning of their career and evaluate employees during introductory periods for the qualities that will set them up for long-term success. Furthermore, employees do not have to pay for separate training before getting a paycheck and can experience the rigors and learning curve of the work in a measured way as they come up to speed in the sector.
- **Marketing to diverse prospective workers:** OBAE recognizes that our ability to build great networks will be improved with the inclusion of people from all parts of society—including people without significant past representation in the telecom sector. Trade schools, technical colleges, and community colleges have significant experience with outreach to nontraditional students, women, and minorities—and their participation in growing a diverse, qualified telecom sector workforce is essential.
- **Local hiring:** Hiring local workers benefits telecom construction in several ways: It saves money by reducing the travel time and travel expenses (e.g., accommodations) required of laborers; it allows for better recruitment as employees often prefer to stay near their

home; and it ensures the benefits of hiring in labor surplus areas stay in that community. OBAA encourages local hiring to be prioritized.

- **Explicit pathways to advancement:** Once a new hire takes the first step into a telecommunications career, their ability to stick with that career and grow in the sector requires well-established pathways to advancement. Establishing great growth pathways can both incentivize people to start in the sector, and ensure they stay to build on their skills and knowledge.
- **Coordination between training providers and employers:** Ongoing close coordination between training providers and employers is essential to ensure that training providers understand what credentials are meaningful, adapt programs to stay current with the sector's needs, and collectively evaluate programs' success and iterate as needed.
- **Recruitment strategies tailored to the realities and challenges of the industry:** Enticing people into a new sector and new career—especially one as unique as being a telecommunication worker—is difficult, especially when unemployment rates are low. Successful recruitment strategies involve screening for aptitude and ability to learn, marketing opportunities based on the tangible and intangible benefits of the career, and making sure there are diverse demographics represented in marketing materials. However, due to the challenges of the job that can only be understood fully by experience, there will always be significant numbers of people who quit within a few months of employment as a lineworker or installer. Because of this, it is recommended that programs and employers set recruitment targets at double or even triple the number of people needed.

Additionally, given the significant gaps in certain critical in-the-field occupations such as electric and telecommunications lineworkers, and the challenges of getting trained workers to the most rural areas of the State where substantial construction will be happening, the OBAA encourages training providers to develop explicit pathways for people in the rural parts of the State to take advantage of training programs. Strategies may include increasing marketing and outreach to rural areas, offering more hybrid or fully virtual learning opportunities, or even offering pop-up or temporary training events in rural communities.

Lastly, perhaps the most important workforce role for New Mexico is its commitment to ongoing and close coordination with employers, unions, and training programs in the broadband sector. Ultimately, the State's workforce initiatives will be most successful if they are responsive to industry needs. A full description of how New Mexico intends to stay in close coordination with broadband construction stakeholders is in the next section.

9.4 Coordination with unions and other workforce stakeholders

Without a robust and highly trained workforce, broadband deployment in New Mexico will not happen on time, at cost, and to the high standards that will set New Mexico up for success for decades to come. Worker associations and organizations are critical partners both in the deployment of broadband and in the extensive preparation happening across the State to ensure the deployment goes according to plan.

OBAE has sought input from unions, educational providers, organizations working to promote diverse and inclusive economies and society, and many representatives of local and State government. Workforce-specific feedback forums were created that included representatives from many of the entities listed below; however, input on workforce planning was sought outside of that process as well.

The feedback of these entities has been instrumental in shaping State plans and understanding the workforce landscape. First, it has been critical for OBAE to understand the current pathways in which companies are currently seeking, or considering seeking, talent in the State, including:

- The creation of training curriculum by Sacred Wind Telecommunications to be implemented in partnership with the National Tribal Telecom Association, Gila River community, the Navajo Nation, and potentially others
- Work at WNMU to bring more technical courses to the Learning Center
- Exploration of partnership with the NCTA and Northwoods Technical College to train workforce for rural cooperatives
- The Santa Fe Community College 80-hour Fiber Technician Bootcamp
- Support of fiber and broadband-related training at the high school level, starting in 10th or 11th grade so that graduates are more workforce ready immediately—for example, at CTECH Career and Technical Center in Hobbs, New Mexico
- Potential collaboration with New Mexico Workforce Connections to support training and wage costs for new trainees
- Exploration of new programs at San Juan College
- A variety of on-the-job training programs offered by ISPs around the State
- Development of industry lead workforce taskforce

- Launch of Be Pro Be Proud²⁶ workforce trailers by the New Mexico Chamber of Commerce, the New Mexico Department of Workforce Solutions, the New Mexico Higher Education Department, the New Mexico Public Education Department, and OBAE

Second, feedback to OBAE on specific workforce needs and program improvements has also been critical. For example:

- The roles that are currently hardest to fill, such as splicers, boring crews, fiber locators, surveyors and draftsman
- The in-demand roles required to support construction, such as environmental specialists, permitting specialists, project managers, and grant compliance specialists
- The need to ensure fiber splicers were pole-trained and pole-ready
- The benefit to having fiber technicians also trained on customer service skills so they can interface successfully with customers

The State welcomes and plans on participating in ongoing close coordination with worker groups, which is essential for the State to create programs to strengthen the workforce and ensure subgrantee awards can be built and executed according to plan. As such, OBAE will work with previously identified stakeholders and other parties interested in workforce issues to meet regularly and establish open channels of communication.

Specifically, the State seeks ongoing updates from training providers, worker organizations, and firms with workforce needs on:

- Recruitment strategies and their effectiveness, including but not limited to the relative efficacy of online postings, job fairs, paid partnerships, and outreach to community and technical colleges, with specificity regarding the effectiveness of outreach designed to engage diverse communities.
- Progress in training and employing new workers, including training program entrance rates, training program graduation rates, job placement rates, and retention rates after 3 and 6 months of employment, or similar data illustrating retention.
- Industry trends that may impact training and recruiting needs, including changes in staffing models, technology, certifications, or skill sets required of workers to be effective throughout deployment.

²⁶ Be Pro Be Proud, <https://beprobeproudnm.org/>.

- Feedback on State programs, as well as additional ideas the State may consider to improve workforce readiness and reach diverse populations.

9.5 Ensuring strong labor standards

Ensuring strong labor standards throughout the entire BEAD deployment process is important not only for the wellbeing of the vast workforce that will be participating in the process but also for the long-term integrity of the network. Treating employees well, which includes providing adequate training, ensuring fair compensation and sufficient breaks, and following robust safety protocols, will have numerous benefits to the BEAD effort.

1. **Worker safety:** Worker safety is a primary concern for any construction happening in the State. Many protocols and practices essential to ensuring strong labor standards are paramount to increasing worker safety, such as providing regular and sufficient work breaks, proper training and oversight to new workers, and reasonable working hours and expectations.
2. **Worker satisfaction and retention:** Construction trades are physically difficult, and when a job also requires working at dangerous heights, it is understandable that a portion of workers leave shortly after trying the work. Part of reducing turnover, however, involves implementing sufficient training, safety, pay, and break standards so that the physical challenges are minimized and new workers become accustomed to the work within a supportive environment.
3. **Quality, resilient networks:** Inordinately rushing construction, or building networks without appropriate oversight or training, will jeopardize the long-term integrity of the networks being built. Strong labor standards will ensure networks are built to the quality and standards expected of this critical infrastructure.

The first step to strong labor standards is recognizing and highlighting the regulations and laws by which subgrantees are bound. New Mexico is very familiar with the nature of the following laws and the work needed to ensure compliance:

Table 12: U.S. labor laws noted in the BEAD NOFO

Labor law	Summary
Fair Labor Standards Act	Establishment of minimum wage, overtime pay, recordkeeping, and child labor standards affecting full-time and part-time workers across private and public sectors

Labor law	Summary
Occupational Safety and Health Act	Establishment of safe and healthy workplace standards
Service Contract Act	Establishment of standards for contractors and subcontractors performing services on prime contracts in excess of \$2,500
Title VI of the Civil Rights Act of 1964 (see also 15 C.F.R. Part 8)	Prohibition on discrimination on the basis of race, color, or national origin under programs or activities receiving federal financial assistance, including from the Department of Commerce
Title IX of the Education Amendments of 1972	Prohibition of discrimination on the basis of sex under federally assisted education programs or activities
The Americans with Disabilities Act of 1990	Prohibition of discrimination on the basis of disability under programs, activities, and services provided or made available by Eligible Entities and local governments or instrumentalities or agencies thereto, as well as public or private entities that provide transportation
Section 504 of the Rehabilitation Act of 1973	Prohibition of discrimination on the basis of handicap under any program or activity receiving or benefiting from federal assistance
The Age Discrimination Act of 1975	Prohibition of discrimination on the basis of age in programs or activities receiving federal financial assistance
Parts II and III of Executive Order 11246, Equal Employment Opportunity	Requires that federally assisted construction contracts incorporate and fulfill the nondiscrimination provisions of §§ 202 and 203 of E.O. 11246 and Department of Labor regulations implementing E.O. 11246 (41 C.F.R. § 60-1.4(b))
Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency	Requires federal agencies to examine the services that they provide, identify any need for services to those with limited English

Labor law	Summary
	proficiency (LEP), and develop and implement a system to provide those services so LEP persons can have meaningful access to them
Executive Order 13798, Promoting Free Speech and Religious Liberty (see also OMB M-20-09 Guidance Regarding Federal Grants and Executive Order 13798)	States or other public grantees may not condition sub-awards of federal grant money in a manner that would disadvantage grant applicants based on their religious character

As the first step to ensuring compliance, New Mexico will ask applicants to self-certify compliance with the laws and regulations listed in the NOFO and the NTIA’s guidance above, as well as all applicable State and federal labor laws. In alignment with NTIA rules, New Mexico will require:

- Certification from an Officer/Director-level employee (or equivalent) on past compliance with federal labor and employment laws
- Disclosure of any violations of labor and employment laws in the last three years, or written confirmation of no such violations
- Written description of steps taken to mitigate any violations that occurred in the past three years
- Documentation of applicable wage scales and overtime payment practices for each class of employee that will be directly in the physical construction of high-speed internet
- Plans for the implementation of workforce safety committees that will be authorized to raise any health and safety concerns

Self-certification is a common practice that firms are accustomed to complying with, and it will take place during the subgrantee application process. The State will ask subgrantee applicants to certify compliance with State workforce and labor laws as well, should State regulations exceed or expand on guidance in the NOFO.

As with potential labor law infractions in other industries, the State makes it known that potential infractions may be reported to the New Mexico Department of Workforce Solutions and/or OBAE. Reported infractions will be investigated under the existing protocols established by the State, and the individuals or entities filing reports will be covered under State whistleblower policies as applicable to the situation and law.

To further ensure self-certification results in appropriate adherence to labor laws, the State will follow best practices for evaluation upon indications of noncompliance. Specifically, auditors or compliance workers employed by the State may request and scrutinize business records of subgrantee firms and impose fines if noncompliance is discovered.

Lastly, in alignment with NOFO guidance, OBAE encourages workers to create worker-led health and safety committees who can then meet with employer management upon request to raise concerns about labor laws and ensure compliance with occupational safety and health requirements. Given that New Mexico has a strong union presence, and unions in the State have avenues of communication with public officials who establish and oversee labor laws, unions will also provide another check on labor law compliance, especially related to hours worked, pay, and safety.

9.6 Ensuring recruitment of qualified diverse firms

Not only does the recruitment of qualified diverse firms as part of BEAD deployment demonstrate a fair and unbiased process, the scale of the work that needs to be done is so profound that excluding any qualified firms could jeopardize the efficient completion of the work that needs to be done.

OBAE will affirm during the subgrantee selection process its commitment to hiring qualified diverse firms and will ask that applicants note in their application if they or any of their partners and subcontractors qualify as a Tribal-owned, women-owned, or minority-owned business. As subgrantee awards are made, these metrics will be shared as part of the final proposal process and publication of awards.

The State also encourages Tribal-, Women-, Minority-, and Veteran-owned businesses to prepare to engage in the BEAD process. Obviously, this includes firms that directly engage in telecommunications activities such as telecom construction contractors, lineworkers and installers, and ISPs; however, the deployment process will also require significant participation from firms and businesses not traditionally associated with telecommunications. For example, the deployment process requires construction of all types, electricians, road flagging crews, fiber locators, accountants, and more. The State expects firms that supply these services will frequently be brought on as subcontractors or partners to applicants, and ensuring recruitment of qualified, diverse firms is essential for these types of businesses as well.

To further encourage diverse participation in the workforce, the State will take the following additional actions:

1. Work with the Disadvantaged Business Enterprise Program, New Mexico Minority Business Development Agency Business Center, Southwest Minority Supplier

Development Council, the New Mexico Black Chamber of Commerce, Women’s Business Council – Southwest, and other partners to ensure Tribal, Minority, Veteran, and/or Women Business Enterprises are on all relevant solicitation lists.

2. Assemble, maintain, and share a list of Tribal, Minority, Veteran, and/or Women Business Enterprises that have expressed interest in participation in BEAD deployments, and promote the list to help make connections to the broader telecommunications business community.
3. Ensure recruitment efforts by training providers and employers target diverse communities by being a conduit between those entities and groups whose goals include encouraging diverse workforce participation, such as job and career centers in communities with higher populations of people of color, representatives of Tribal Nations, community colleges, technical centers, and Veterans centers, as well as nonprofit stakeholder groups with a focus on promoting inclusive economies.

Lastly, state and local economies and tax bases benefit the most when firms from Labor Surplus Areas are engaged, particularly when they fill staff openings locally. Labor surplus areas can be counties, cities, and balance of county areas. In New Mexico, those areas are designated by the U.S. Department of Labor in its 2024 update issued on October 1, 2023:²⁷

- Balance of Doña Ana County
- Balance of Lea County
- Balance of San Juan County
- Cibola County
- Guadalupe County
- Hobbs city (in Lea County)
- Lea County
- Luna County
- McKinley County
- Mora County

²⁷ “Labor Surplus Area,” U.S. Department of Labor, <https://www.dol.gov/agencies/eta/lsa>.

- Roswell city (in Chaves County)
- San Juan County
- San Miguel County
- Sierra County
- Taos County
- Torrance County

9.7 Subgrantee selection process related to workforce considerations

New Mexico will take the following approach to the subgrantee selection process as it relates to workforce:

- **Require self-certification that applicants meet federal labor standards indicated in statute, as well as any applicable State laws that expand or exceed federal rules.** As directed in the NOFO, New Mexico will prioritize firms that can certify compliance.
- **Require disclosure of any workforce violations within the past three years.** If violations exist, require documentation of how the applicant has updated their policies and practices to ensure compliance moving forward.
- **Require documentation of whether subgrantees, their partners and contractors qualify as a minority-owned enterprise, women-owned enterprise, or Labor Surplus Area Firm.** The State may use answers to these questions as a tiebreaker in the event that multiple equally qualified and equally scoring applications for the same area are received.
- **Require a written description or affirmation of subgrantee policies or practices for any of the following items:**
 - Using a directly employed workforce, as opposed to a subcontracted workforce
 - Use of project labor agreements
 - Use of local hire provisions
 - Use of labor peace agreements
 - Commitment to union neutrality
 - Steps taken to prevent the misclassification of workers

- **Ask applicants to describe their usage of on-the-job training, internship, or apprenticeship programs, as well as credentials they confer upon program completion.** This can lead to better retention of staff and allows pathways for workers with a wide range of educational backgrounds to participate.
- **Ask applicants to describe the actions they take specific to recruiting a diverse workforce, and/or future plans to do more outreach to diverse groups.** This answer may include a description of specific outreach or materials intended to be welcoming to women, people of color, or other groups not typically represented in most of the telecommunications construction workforce.
- **Ask that subgrantees report whether they offer Davis-Bacon prevailing wages, and document compliance with relevant aspects of 11.1.2.20 NMAC, “Prevailing Wage and Fringe Benefit and Apprenticeship Contribution Rates.”**

Please see Section 5 for a full description of the proposed subgrantee selection process.

9.8 Ensuring long-term economic impact from BEAD deployments

New Mexico’s economy is undoubtedly going to benefit from the broadband expansion that will occur over the next few years. Some benefits will happen ambiently simply due to increased spending in the economy during construction, or the increase in home values that occur with the presence of fiber infrastructure. However, the major long-term impacts to the economy will occur if more broadband adoption happens because of these deployments, and if broadband users across the State use their connectivity to access efficient services, move businesses online, leverage new technologies, start digital businesses, access remote learning and working opportunities, use telehealth when appropriate, and more. This section describes how the BEAD deployment will help New Mexico’s economy in the short and long term.

9.8.1 Short-term economic impact from initial construction outlay

Input-output models are industry-standard tools that use advanced data modeling to estimate how money and workforce flow through the economy and between industries; in this case, the model shows how the sector contributes significant direct, indirect, and induced benefits to New Mexico’s economy.²⁸ The initial broadband construction spending leads to a direct effect that results from the increased demand for goods and services in the broadband construction supply chain (for example, the increased demand for conduit, fiber, and network electronics). The indirect effect results from the increased demand for goods and services that the broadband

²⁸ **Direct effects** result from expenditures within that industry’s supply chain. **Indirect effects** are the changes in expenditures and employment in the supply chains of the initial supply chain (as in, one level removed). **Induced effects** are the effects generated by the subsequent spending money at a household level (e.g., lineworkers’ use of their paycheck for food and clothing).

supply chain *uses* (for example, the increased demand for the materials and equipment that contribute to the manufacture of conduit and fiber, or the transportation needed to deliver said goods). As the initial, direct, and indirect effects increase earnings for workers, these workers spend their earnings on various goods and services (for example, at grocery stores, restaurants, and clothing stores), which is represented by the induced effect.

The chart below outlines the total estimated benefits from an \$810 million and a \$951 million investment in broadband in New Mexico. Sales are the industry’s total annual gross receipts for products and services. A job is any position in which a worker provides labor in exchange for monetary compensation. Earnings include wages, salaries, supplements (additional employee benefits), and proprietor income.

Table 13: Estimated economic effects of investing \$810 million in broadband construction²⁹

Effect	Sales	Jobs	Earnings
Initial	\$810,446,774	2,334	\$177,605,754
Direct	\$143,641,007	880	\$49,787,881
Indirect	\$38,647,799	288	\$14,191,742
Induced	\$231,826,156	1,740	\$88,126,633
Total	\$1,224,561,737	5,242	\$329,712,010

Table 14: Estimated economic effects of investing \$951 million in broadband construction³⁰

Effect	Sales	Jobs	Earnings
Initial	\$950,846,774	2,739	\$208,373,780
Direct	\$168,525,056	1,032	\$58,413,023
Indirect	\$45,343,058	337	\$16,650,288
Induced	\$271,987,205	2,042	\$103,393,495
Total	\$1,436,702,093	6,150	\$386,830,586

²⁹ Lightcast Datarun 2023.3.

³⁰ Lightcast Datarun 2023.3.

9.8.2 Long-term objectives for enhancing economic growth and job creation

While the economic benefits from construction spending are considerable, and some economic benefits (like an increase in home values, as demonstrated by Deller and Whitacre³¹ in 2019) can be expected just from the presence of fiber on a street, the long-term benefits to New Mexico's economy will be fully realized as a result of increased utilization of the internet. In other words, building better networks is good, but encouraging as much adoption as possible is necessary to maximize the long-term economic benefits.

Because broadband touches almost every aspect of life, it is nearly impossible to quantify the economic impacts across all potential aspects of savings, efficiencies, benefits from innovation, or benefits to quality of life. However, a significant number of distinct and measurable benefits have been identified by academic researchers over the years, including:

- Local employment growth (Kolko, 2012)³²
- Lower unemployment rates (Jayakar and Park, 2013)³³
- Faster income growth (Whitacre, Gallardo, and Strover, 2014)³⁴
- Faster growth in firms and employees (Whitacre, Gallardo, and Strover, 2014)³⁵
- Higher attraction rate in new and existing firms (Kim and Orazem, 2017)³⁶
- Greater civic engagement (Whitacre and Manlove, 2016)³⁷

³¹ Steven Deller and Brian Whitacre, "Broadband's relationship to rural housing values," Regional Science Association International (RSAI), May 23, 2019, <https://rsaiconnect.onlinelibrary.wiley.com/doi/full/10.1111/pirs.12450>.

³² Jed Kolko, "Broadband and local growth," Journal of Urban Economics, ScienceDirect, January 2012, <https://www.sciencedirect.com/science/article/abs/pii/S0094119011000490>.

³³ Krishna Jayakar and Eun-A Park, "Broadband Availability and Employment: An Analysis of County-Level Data from the National Broadband Map," Journal of Information Policy, ResearchGate, 2013, https://www.researchgate.net/publication/285767484_Broadband_Availability_and_Employment_An_Analysis_of_County-Level_Data_from_the_National_Broadband_Map.

³⁴ Brian Whitacre, Roberto Gallardo, and Sharon Strover, "Broadband's contribution to economic growth in rural areas: Moving towards a causal relationship," Telecommunications Policy, ScienceDirect, December 2014, <https://www.sciencedirect.com/science/article/abs/pii/S0308596114000949>.

³⁵ Brian Whitacre, Roberto Gallardo, and Sharon Strover, "Does rural broadband impact jobs and income? Evidence from spatial and first-differenced regressions," The Annals of Regional Science, SpringerLink, September 9, 2014, <https://link.springer.com/article/10.1007/s00168-014-0637-x>.

³⁶ Younjun Kim and Peter Orazem, "Broadband Internet and New Firm Location Decisions in Rural Areas," American Journal of Agricultural Economics, Wiley Online Library, November 16, 2016, <https://onlinelibrary.wiley.com/doi/10.1093/ajae/aaw082>.

³⁷ Brian Whitacre, "Fixed broadband or mobile: What makes us more civically engaged?" Telematics and Informatics, ScienceDirect, August 2017, <https://www.sciencedirect.com/science/article/abs/pii/S073658531630630X>.

Since it is nearly impossible to measure long-term benefits across all possible avenues directly, this report uses a Consumer Surplus Analysis methodology to roughly quantify total economic benefits to consumers. The premise of this type of analysis is that if a consumer would pay more for a service than they currently are paying, they are deriving a quantifiable value from that service. For example, if a broadband connection costs \$60 per month, but the family would pay \$250 per month because it provides them so much opportunity and value across their work and personal life, then one could say that the household is deriving \$190 of surplus value each month from that service.

Analysis by Rembert et al. (2017) suggests that each household has an annual added benefit from broadband worth an estimated \$1,850 per year.³⁸ Given that this research occurred before the COVID-19 pandemic, when broadband increased the benefits and opportunities available to users, that estimated value can be considered conservative.

To estimate the potential economic impacts of expanded broadband in this regard, this report first models the rate at which adoption may increase across the State.³⁹ As noted in New Mexico's BEAD Five-Year Action Plan, an estimated 19.5 percent of New Mexico residents do not use the internet according to the NTIA, and according to the ACS, approximately 16 percent of households may not subscribe to a home-based internet product. Clearly, those gaps in adoption are in part because many areas of the State lack access, and in part because some households with access decline to subscribe due to any number of factors (affordability, lack of digital skills, etc.).

This analysis estimates the impacts of reducing the gap in adoption by half—in other words, increasing the percentage of broadband-adopting households from 84 percent to 92 percent.

In New Mexico, cutting the estimated current adoption gap in half will result in approximately 79,577 new households enrolled in a broadband plan after 10 years. But clearly, broadband adoption cannot happen all at once; only *after* infrastructure is built can households become subscribers. The estimated adoption percentages for this analysis are included in the table below, based on adoption trends and projections outlined in previous research from Spell and Low

³⁸ Mark Rembert, Bo Feng, and Mark Partridge, "Connecting the Dots of Ohio's Broadband Policy," Swank Program in Rural-Urban Policy, Ohio State University, 2017, https://aede.osu.edu/sites/aede/files/publication_files/Connecting%20the%20Dots%20of%20Ohio%20Broadband_0.pdf.

³⁹ Baseline data were derived from the 2021 American Community Survey 5-Year Estimates.

(2021). These adoption percentages assume most new infrastructure is built in years one to five.⁴⁰

Table 15: Estimated rate at which households adopt broadband

Year	1	2	3	4	5	6	7	8	9	10
Percent of new households adopted	0%	20%	40%	80%	90%	92%	94%	96%	98%	100%
Cumulative new households	0	15,915	31,831	63,662	71,619	73,211	74,802	76,394	77,985	79,577
Yearly surplus value	0	\$29 million	\$58 million	\$118 million	\$132 million	\$135 million	\$138 million	\$ 141 million	\$144 million	\$147 million

To calculate the estimated consumer surplus under each adoption scenario, the number of households adopting broadband each year was multiplied by the assumed value identified by Rembert et al., and the cumulative consumer surplus value after 10 years is estimated to be just over \$1 billion.

9.8.3 Economic development opportunities in New Mexico because of BEAD deployments

Importantly, increased high-speed broadband usage and adoption will greatly benefit the State’s existing economic development priorities and plans. As stated by the New Mexico Economic Development Department,⁴¹ the following six key strategies for economic development stakeholders provide a roadmap for achieving the State’s vision of building “a diverse and robust economy that engages local talent, cultivates innovation, and delivers prosperity for all New Mexicans”:

1. *Modernize New Mexico’s economic development ecosystem*
2. *Strengthen New Mexico’s communities*

⁴⁰ Alan Spell and Sarah Low, “Economic Benefits of Expanding Broadband in Select Missouri Counties. University of Missouri Extension,” Missouri Broadband Resource Rail, https://mobroadband.org/wp-content/uploads/sites/44/2021/06/Exceed_BroadbandImpactReport_Jun2021.pdf, p. 7.

⁴¹ SRI International, “Empower & Collaborate: New Mexico’s Economic Path Forward,” New Mexico Economic Development Department, October 2021, https://edd.newmexico.gov/wp-content/uploads/2023/09/statewide_plan_executive_summary.pdf.

3. *Reimagine education and training*
4. *Promote equity through economic justice*
5. *Enable high-quality home-grown innovation*
6. *Diversify New Mexico's economy*

These strategies dovetail with the ways in which broadband has been shown to impact economies and accelerate efforts like the ones New Mexico has prioritized. For example, business attraction relies on many factors, but ubiquitous high-speed broadband is essential for companies looking for markets that allow them to grow hybrid teams, attract employees to an area, ensure quality of life for workers, and access global markets virtually. Clearly, business innovation requires having access to and utilizing the latest emerging technologies, which—in an economy that increasingly permits or encourages remote and hybrid work—requires high-speed connections at both the home and office.

There is also evidence that innovation, entrepreneurship, and talent growth happen more readily with increased access to broadband. Research by Kolko (2012)⁴² and Mack and Faggian (2013)⁴³ indicates that employment gains due to increased high-speed broadband utilization are not achieved across all sectors, but instead concentrated in knowledge-intensive industries. These industries are ones that rely on specialized human capital—often digitally enabled, or working in concert with technology—to create value. These roles often have higher wages than other industries; a Brookings report identifies digital jobs as the second-fastest-growing industry in the country, and wage growth in tech is the highest of any industry.⁴⁴

One reason that tech jobs and knowledge-intensive jobs have such an outsized impact on local economies is because of the “multiplier effect”⁴⁵—for every high-tech job created, three to five additional jobs are created locally. And since tech jobs offer an income that is more than twice the national average,⁴⁶ increased investment in tech workforces (starting with high-speed broadband as a foundation) can lead to greater opportunity for households *and* entire

⁴² Jed Kolko, “Broadband and local growth,” *Journal of Urban Economics*, 71(1), 2012, 100-113.

⁴³ Brian Whitacre, Roberto Gallardo, and Sharon Stover, “Does rural broadband impact jobs and income? Evidence from spatial and first-difference digressions,” *The Annals of Regional Science*, 53(3), ResearchGate, November 2014, 649-670, https://www.researchgate.net/publication/272008852_Does_rural_broadband_impact_jobs_and_income_Evidence_from_spatial_and_first-differenced_regressions.

⁴⁴ Mark Muro, Sifan Liu, Jacob Whiton, and Siddharth Kulkarni, “Digitalization and the American Workforce,” Brookings, November 2017, https://www.brookings.edu/wp-content/uploads/2017/11/mpp_2017nov15_digitalization_full_report.pdf.

⁴⁵ “The Multiplier Effect of Innovation Jobs,” *MIT Sloan Management Review*, June 6, 2012, <https://sloanreview.mit.edu/article/the-multiplier-effect-of-innovation-jobs/>.

⁴⁶ U.S. Census Bureau, <https://data.census.gov/cedsci/table?q=S2411&g=01000H0US>.

communities. This is one of the many ways in which broadband access can strengthen all aspects of New Mexico communities in support of State goals.

In summary, as New Mexico deploys broadband across the State under the Internet for All mandate, the State must work to maximize the value of that broadband by pursuing two strategies. First, New Mexico must work hard to increase broadband adoption both in areas of new builds as well as areas of existing broadband so that as many people can take advantage of the opportunities that great broadband affords. Second, New Mexico must continue down the path of pursuing economic development strategies that leverage the unique ability for high-speed broadband to provide New Mexico businesses better access to talent and technology and allows New Mexico entrepreneurs and business owners to access global markets whether their company has one employee or thousands.

10. Minority Business Enterprises (MBE) / Women’s Business Enterprises (WBE) / labor surplus area firms inclusion (Requirement 13)

This section documents how the OBAE will promote recruiting, utilizing, and retaining minority business enterprises (MBEs), women’s business enterprises (WBEs), and labor surplus area firms (LSAFs), when possible.

New Mexico, through the New Mexico Department of Transportation (NMDOT), has established a framework for certifying and connecting Disadvantaged Business Enterprises (DBEs) with opportunities. DBE certification in New Mexico implies a business is at least 51 percent owned and operated by one or more minority individuals. This certification allows these enterprises to fairly compete for U.S. Department of Transportation-assisted contracts for highway, transit, and airport projects.⁴⁷

Furthermore, the New Mexico MBDA Business Center, operated by the City of Albuquerque Economic Development Department, is strategically focused on advancing minority business enterprises to the next level of success.⁴⁸

The U.S. Secretary of Labor is required to annually designate Labor Surplus Areas (LSA) and disseminate this information for the use of all federal agencies in directing procurement activities and in locating new plants or facilities. States may direct federal funding to designated LSAs where there is high unemployment. Employers located in those areas can be given preference in bidding on federal procurement contracts.⁴⁹ An area must have an unemployment rate at least 20 percent above the national rate (including Puerto Rico) during the previous two calendar years to qualify as an LSA. The U.S. Department of Labor identifies 16 cities, counties, and balance of county areas in New Mexico as LSAs in its 2024 update.⁵⁰ There are 18,779 enterprises in the 13 counties whose areas include the 16 LSAs, according to the New Mexico Economic Development Department (EDD), which keeps a list of county profiles that are updated monthly.⁵¹

⁴⁷ “Disadvantaged Business Enterprise Program (DBE),” NMDOT, <https://www.dot.nm.gov/highway-operations-program/operations-support-division-director/construction-civil-rights-bureau/disadvantaged-business-enterprise-program-dbe/>.

⁴⁸ New Mexico MBDA Business Center, <https://www.mbda.gov/business-center/new-mexico-mbda-business-center>.

⁴⁹ See Executive Order 12073 and Executive Order 10582.

⁵⁰ “Labor Surplus Area,” U.S. Department of Labor, <https://www.dol.gov/agencies/eta/lisa>.

⁵¹ “County Economic Summaries & Data Profiles,” EDD, <https://edd.newmexico.gov/site-selection/county-profiles/>. The 13 counties are: Chaves, Cibola, Doña Ana, Guadalupe, Lea, Luna, McKinley, More, San Juan, San Miguel, Sierra, Taos, and Torrance.

10.1 Process, strategy, and data tracking methods to ensure that minority businesses (MBE), women-owned business enterprises (WBEs), and labor surplus area firms (LSAF) are recruited, used, and retained when possible

The strategy implemented by OBAE to ensure MBE/WBE and LSAF firms are recruited, used, and retained, when possible, includes the following methods of tracking and outreach. Through an online portal, operated by NMDOT and titled the Disadvantaged Business Enterprise System, organizations can certify their status to be recognized by New Mexico as a disadvantaged business enterprise (DBE).⁵² NMDOT maintains a database of DBEs, to facilitate business opportunities for disadvantaged businesses.

To assure DBEs have the best possible opportunity for participation, NMDOT conducts outreach events and engages with disadvantaged businesses to connect them with resources and opportunities provided under these strategies.⁵³

10.1.1 Place qualified small and minority businesses and women’s business enterprises on solicitations lists

OBAE will work closely with State and local agencies to identify and place qualified small, minority, and women’s business enterprises on solicitation lists. The solicitation lists will be updated regularly to ensure accuracy and inclusivity.

10.1.2 Assure that small and minority businesses and women’s business enterprises are solicited whenever they are potential sources

OBAE will utilize the established solicitation lists to assure that these enterprises are solicited in all relevant procurement processes. Additionally, targeted outreach and informational sessions will be conducted to assure these enterprises are aware of upcoming opportunities.

10.1.3 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

The division of total project requirements into smaller tasks or quantities will be analyzed by OBAE in cooperation with NMDOT on a case-by-case basis to ensure economic feasibility while promoting maximum participation of small and minority, and women’s business enterprises.

⁵² “Disadvantaged Business Enterprise System,” NMDOT, <https://nmdot.dbesystem.com/>; 49 eCFR 26.5, <https://www.ecfr.gov/current/title-49/subtitle-A/part-26>.

⁵³ “Disadvantaged Business Enterprise Program (DBE),” NMDOT, <https://www.dot.nm.gov/highway-operations-program/operations-support-division-director/construction-civil-rights-bureau/disadvantaged-business-enterprise-program-dbe/>.

10.1.4 Establish delivery schedules, where the requirements permit, which encourage participation by small and minority businesses and women’s business enterprises

OBAE will establish flexible delivery schedules, where possible, to accommodate the capacities of small, minority, and women’s business enterprises, thus encouraging their participation in projects. Through the usage of flexible delivery schedules, smaller organizations will be able to structure their projects in a manner conducive to the tailored needs of their firm.

10.1.5 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

The State of New Mexico works in close cooperation with the Minority Business Development Agency (MBDA)⁵⁴ to offer several MBDA recognized programs:

- American Indian Business Enterprise⁵⁵
- Four Winds Diversified Project⁵⁶
- New Mexico MBDA Business Center⁵⁷
- Institute of American Indian Arts (IAIA)⁵⁸
- New Mexico Minority Colleges and Universities⁵⁹

OBAE will work with local staff from the New Mexico district of the U.S. Small Business Administration (SBA).⁶⁰ The SBA’s New Mexico District can help small businesses obtain a loan and offers online links to additional resources.⁶¹

⁵⁴ “Business Centers,” MBDA, <https://www.mbda.gov/mbda-programs/business-centers>.

⁵⁵ “American Indian Business Enterprise,” MBDA, <https://www.mbda.gov/business-center/american-indian-business-enterprise>; American Indian Business Enterprise Center, <https://arrowheadcenter.org/program/aibe/>.

⁵⁶ “Four Winds Diversified Project,” MBDA, <https://www.mbda.gov/business-center/four-winds-diversified-project>; Southwest Business Development Consultants, LLC, <https://swbdc.com/>.

⁵⁷ “New Mexico MBDA Business Center,” MBDA, <https://www.mbda.gov/business-center/new-mexico-mbda-business-center>; New Mexico MBDA Business Center, <https://www.nmmbda.com/>.

⁵⁸ “Institute of American Indian Arts (IAIA),” MBDA, <https://www.mbda.gov/business-center/institute-american-indian-arts-iaia>; Institute of American Indian Arts (IAIA), <https://iaia.edu/>.

⁵⁹ “New Mexico Minority Colleges and Universities,” MBDA, <https://www.mbda.gov/business-center/new-mexico-minority-colleges-and-universities>.

⁶⁰ “New Mexico District,” SBA, <https://www.sba.gov/district/new-mexico>.

⁶¹ “Doing business in the New Mexico District,” SBA, <https://www.sba.gov/district/new-mexico/doing-business-new-mexico-district>.

10.1.6 Require each subgrantee to take these affirmative steps as they relate to its subcontractors

OBAE will mandate the adoption of these affirmative steps to ensure a comprehensive approach towards promoting inclusivity within subcontracting practices. These strategies, in alignment with the guidelines provided by the NTIA, aim to foster an inclusive environment that propels the engagement and success of MBE/WBE and LSAF organizations.

10.2 Certification

The State certifies that it will:

- Place qualified small and minority businesses and women’s business enterprises on solicitation lists
- Assure that small and minority businesses, and women’s business enterprises are solicited whenever they are potential sources
- 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
- Establish delivery schedules, where the requirements permit, which encourage participation by small and minority businesses, and women’s business enterprises
- 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
- Require each subgrantee to take these affirmative steps as they relate to its subcontractors

11. Cost and barrier reduction (Requirement 14)

This section documents the steps OBAE will take to reduce costs and barriers to deployment through promoting the use of existing infrastructure and promoting and adopting dig-once policies, streamlined permitting processes, and cost-effective access to poles, conduits, easements, and rights of way, including the imposition of reasonable access requirements. This section also includes steps to reduce costs associated with construction, labor, overhead, and materials which OBAE has identified as additional barriers in the State.

Removing deployment barriers related to permits, rights of way, and pole attachments (PROP) is a strategic priority for the State, as established in OBAE's Three-Year Plan (2023).⁶² This initiative is composed of three main objectives:

- Streamlining permitting and rights-of-way use agreements
- Modernizing pole attachment policies and practices
- Implementing a New Mexico Department of Transportation (NMDOT) rights of way fee waiver program for in-kind fiber and/or conduit contribution (see Section 11.1.1)

To support these efforts, the Connect New Mexico Council has convened a Permits, Rights-of-Way, and Pole Attachments working group⁶³ to share best practices, develop solutions, and support collaboration between relevant authorities. The group is composed of a diverse mix of stakeholders, including State and federal agencies, ISPs, and electric utilities that own poles.

The Connect New Mexico Council in collaboration with OBAE is required to prepare a Data Collection Annual Report for the State Legislature pursuant to NMSA 1978 63-9K-7, the Connect New Mexico Act (CNMA).⁶⁴ The report⁶⁵ describes the current state of broadband access and digital equity, documenting progress towards implementing the State's Three-Year Broadband Plan, and recommends statutory, regulatory, and/or policy changes and budget recommendations to support the expansion of broadband infrastructure.

⁶² "State of New Mexico Three-Year Broadband Plan," OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>.

⁶³ "CNM Working Groups," Connect New Mexico, <https://connect.nm.gov/cnm-working-groups.html>.

⁶⁴ "Connect New Mexico Act," <https://law.justia.com/codes/new-mexico/2021/chapter-63/article-9k/section-63-9k-7/>.

⁶⁵ "State of New Mexico Data Collection Annual Report," OBAE, October 2023, https://connect.nm.gov/uploads/1/4/1/9/141989814/new_mexico_data_collection_annual_report_-_10022023.pdf.

OBAE and Governor Michelle Lujan Grisham previously pursued legislation in the 2023 legislative session to create smoother pathways for the development of broadband infrastructure, and the package of bills passed both houses and were signed into law by the Governor.⁶⁶

Through an extensive review of sources of increased deployment costs and barriers for deployment, OBAE has identified the following strategies for mitigating cost and barrier risks.

11.1 Promote the use of existing infrastructure

11.1.1 Streamline access to State conduits and poles

OBAE is in discussions with the New Mexico Department of Transportation (NMDOT) to streamline access to conduits, poles, and rights-of-way on State roads.

NMDOT has been developing right-of-way management policies and rules to allow private broadband entities to be treated as utilities under 23 CFR Part 645 for several years, beginning with revising the Utility Accommodation Rule 17.4.2 NMAC to allow private businesses to have similar access to public rights-of-way as Public Regulation Commission (PRC) consumer rate regulated traditional utilities like water, electricity, and gas.

OBAE is also working with NMDOT to institute a program through which NMDOT will offer private broadband providers access to rights-of-way at a significantly reduced charge in exchange for either 1) allowing NMDOT and public agencies to install State-owned conduit and fiber at the same time as the private facilities are deployed (i.e., dig-once); or 2) granting a fair and equitable reduction in billable broadband services provided to the State by the broadband entities or their partners. This program would complement the FCC's infrastructure sharing statute 47 USCS §224.

Additionally, the State Transportation Commission may waive "administrative and annual" fees for the installation of infrastructure within public highways to deliver broadband services to unserved and underserved locations (as defined by the Connect New Mexico Act), per House Bill 160 (2023).⁶⁷

NMDOT will enable broadband companies to plan future route deployments to coincide with NMDOT highway improvement projects by implementing a publicly available four-year future Statewide Transportation Improvement Program (STIP) access portal. Implementation of this portal began in 2022.

⁶⁶ "Governor Signs Package of Broadband Bills which Break Down Systemic Barriers to Better Internet," news release from Connect New Mexico, April 6, 2023, <https://api.realfile.rtsclients.com/PublicFiles/16569e3bf98c467e95901b46fd511499/127405bb-2ba3-4934-ad35-b7bc5b7a79ca/OBAE-legislative-agenda-signed-into-law.pdf>.

⁶⁷ See House Bill 160 (2023), amending Section 67-3-12 NMSA 1978 (being laws 1929, Chapter 110, Section 1, as amended), <https://nmlegis.gov/Sessions/23%20Regular/final/HB0160.pdf>.

To support accessing poles to add aerial attachments and lowering the overall cost of make-ready in the rights-of-way, OBAE will also work to modernize policies and processes for pole attachments—including implementing “one touch make-ready” (OTMR) policies.⁶⁸

OBAE has also engaged with the New Mexico State Land Office (SLO) and confirmed that it intends to reduce costs for right-of-way use on State lands. Based on review of the State Land Office constitutional requirements, it is unable to waive fees in their entirety.

11.1.2 Encourage local communities to leverage their poles and conduits

OBAE will encourage municipalities that own poles or conduits to make them available and will provide examples of local ordinances or policies as models. These localities can indicate availability of such streamlined access and OBAE will publish this information for eligible areas so grant participants can take it into consideration for their cost proposals.

Through its PROP initiative, OBAE will facilitate better coordination between municipalities and utilities who own poles and entities deploying broadband infrastructure. OBAE will work closely with pole owners in unserved and underserved areas to identify expedited strategies for broadband deployment, and can serve as a central point of coordination to set expectations, monitor timelines, and resolve potential disputes. As part of this effort, OBAE plans to work with utility pole owners to standardize their fee structures taking guidance from the FCC and the New Mexico Rural Electric Cooperatives (NMREC).

11.1.3 Allow access to limited-access rights-of-way for last-mile broadband providers providing service to unserved and underserved locations

The State will also explore ways it can facilitate subgrantees gaining access to limited-access rights-of-way through streamlined public interest and resource-sharing arrangements. There may be opportunities for NMDOT to allow fiber installations in limited access State and interstate highways. If delivering broadband to unserved and underserved locations is defined as public interest construction, it could potentially facilitate resource-sharing arrangements that could be standardized to reduce permit timelines and costs.

11.1.4 Encourage passive infrastructure sharing

OBAE also seeks to work within Administrative Code (NMAC) to create a program for sharing passive infrastructure in New Mexico. The program will include establishing clear legal frameworks, mandating infrastructure sharing, developing a central database, implementing streamlined procedures, encouraging infrastructure collaboration, setting pricing guidelines, and monitoring and enforcing the requirements.

⁶⁸ “State of New Mexico Three-Year Broadband Plan,” OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>, p. 77.

OBAE and NMDOT have begun coordinating and looking at other state models for providing a central portal of assets and existing rights-of-way.

11.1.5 Create online State-hosted middle-mile database and conduct RFI

Lack of access to robust middle-mile infrastructure has made it less cost-effective for ISPs to extend or upgrade their networks in many of New Mexico’s unserved and underserved communities.

The State’s commitment to asset sharing does not end with physical assets; OBAE has built a comprehensive mapping database on known public and private assets as well as awards and has made the maps publicly available on the OBAE website.

OBAE issued a previous Statewide Middle-Mile Network RFI in 2022 to support the State and ISPs in applying for middle-mile grant funds from NTIA.⁶⁹ This RFI provided the State with valuable information to submit its middle-mile grant application.

The mapping database is available to the public, allowing for early planning and budgeting before applications are filed. Access to such information allows some competitors to submit more cost-effective, accurate, and informed project applications.

11.1.6 Explore use of planned middle-mile infrastructure

OBAE is studying best practices regarding middle-mile infrastructure and is considering several options for making existing infrastructure available to BEAD-funded builds. OBAE is leading the Statewide Education Network (SEN),⁷⁰ a network designed to provide access to educational institutions statewide, which might have additional capacity that could be utilized by ISPs. The SEN is the foundation of OBAE’s middle-mile vision for New Mexico.⁷¹ Equally important is the Pueblo Education Network (PEN), designed to connect Tribal-controlled schools and libraries.⁷²

⁶⁹ “New Mexico Statewide Middle-Mile Network RFI,” NM DoIT,

<https://www.doit.nm.gov/programs/broadband/new-mexico-statewide-middle-mile-network-rfi/>.

⁷⁰ “Statewide Education Network (SEN),” Connect New Mexico, <https://connect.nm.gov/sen.html>.

⁷¹ See “Broadband Update & Right of Way (ROW),” Presentation to the Transportation Infrastructure Revenue Subcommittee, New Mexico Legislature, August 31, 2022,

[https://www.nmlegis.gov/\(X\(1\)S\(jpkpifh1vtx2rttumdxh1hj\)\)/handouts/TIRS%20083122%20Item%206%20OBAE%20Presentation.pdf](https://www.nmlegis.gov/(X(1)S(jpkpifh1vtx2rttumdxh1hj))/handouts/TIRS%20083122%20Item%206%20OBAE%20Presentation.pdf), p.15.

⁷² “State of New Mexico Three-Year Broadband Plan,” OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>, p.8.

The University of New Mexico operates several networks⁷³—notably, the Rio Grande Optical Network (RGON)—and OBAE is working with the relevant parties to explore the possibility of making a portion of these assets available to BEAD projects.

A private entity, ENMR Telephone Cooperative, parent company of New Mexico-based Plateau Communications, in 2022 won \$49,858,624 to support a \$102,348,503 middle-mile project to deliver middle-mile infrastructure through 20 counties in New Mexico and 14 counties in Texas.⁷⁴ Although ENMR Telephone Cooperative has wholesale customers, the NTIA middle-mile grant program does not require recipients to offer open access service unless they commit to doing so. OBAE plans to explore synergies between BEAD-funded deployments and this middle-mile project.

11.2 Promote dig-once policies by providing best practice guide for localities

OBAE will encourage sharing of open trenches and available conduit via the promotion and adoption of dig-once policies, which ensure proper notification has been made before rights-of-way are open with the goal of facilitating collaborative (and concurrent) construction timelines between entities hoping to dig in the same rights-of-way.

The State plans to develop and implement dig-once and conduit sharing policies as part of its PROP initiatives.⁷⁵ As discussed in Section 11.1.1, OBAE is also working with NMDOT to establish a program that would encourage private broadband providers to allow NMDOT or other agencies to leverage their projects to install State-owned fiber or conduit at the same time. OBAE will encourage NMDOT to lay empty conduit in every open trench. This would drop the requirement for all NMDOT permits for broadband buried in the ground. The term “dig once requirement” reduces the cost and accelerates the deployment of broadband by minimizing the number and scale of repeated “digs” or excavations for the installation and maintenance of broadband fiber plus conduit and leverages broadband infrastructure rights-of-way. This is consistent with the Federal Dig Once Act of 2021.

⁷³ “Broadband and Education,” University of New Mexico, Office of the Chief Information Officer, <https://cio.unm.edu/initiatives/broadband.html>.

⁷⁴ See, “Enabling Middle Mile Broadband Infrastructure Program, Funding Recipients,” NTIA, <https://broadbandusa.ntia.gov/funding-programs/enabling-middle-mile-broadband-infrastructure-program/funding-recipients>. ENMR previously won an NTIA grant in 2010. See, “ENMR Telephone Cooperative, Inc. dba ENMR-Plateau,” NTIA, <https://www2.ntia.doc.gov/grantee/enmr-telephone-cooperative-inc-dba-enmr-plateau-0>.

⁷⁵ “State of New Mexico Three-Year Broadband Plan,” OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>, p. 75.

As of August 2023, OBAE has already started to coordinate with NMDOT by identifying all the current projects that can accept a change order for trench and fiber for the next one to three years. OBAE and NMDOT have also started to look at NMDOT road projects that are four years out where trenches, fiber and conduit can be planned into the design process. OBAE will continue to monitor the NMDOT monthly report and have periodic meetings with NMDOT to ensure we stay in lock step.

The State will encourage NMDOT to publish best practices and guides for localities to consider implementing similar policies and model local codes. This will minimize the number of times rights-of-way will be dug into, allowing even the smallest funded projects to leverage economies of scale to reduce costs.

This approach is in alignment with guidance from the U.S. Federal Highway Administration (FHWA) Office of Transportation Policy Studies, which notes in a policy brief that “the largest cost element for deploying broadband is burying fiber optic cables and conduit underground,” citing the FCC. In the brief, FHWA emphasizes the importance of implementing dig once policies at the local level as permits to install or work on existing facilities are often requested from cities and counties.⁷⁶

11.3 Streamline permitting processes

Permitting long fiber routes is particularly challenging in New Mexico due to the many local, State, and federal authorities having jurisdiction as well as the State’s significant environmental resources and rich archaeological history. A central goal of OBAE’s PROP initiative is to ensure fast, fair, transparent, and cost-effective permitting processes for deploying broadband infrastructure.

OBAE has been instructed by NMSA 1978-63-9J, the New Mexico “Broadband Access and Expansion Act” (OBAE Act), to “coordinate with federal, local government, State and Tribal government agencies to create an integrated system of permits, licenses and rules for broadband infrastructure across all governmental jurisdictions within each region of the State, including the creation of a centralized repository, and an expedited review process for rights of way use applications, with the goal of creating uniform coordinated permitting and licensing requirements statewide.”⁷⁷

⁷⁶ “Minimizing Excavation Through Coordination,” policy brief from the FHWA Office of Transportation Policy Studies, October 2013, https://www.fhwa.dot.gov/policy/otps/policy_brief_dig_once.pdf.

⁷⁷ “Section 63-9J-4 NMSA 1978,” NMOneSource, <https://nmonesource.com/nmos/nmsa-historical/en/item/18680/index.do#!b/63-9J-4>.

11.3.1 Optimize local permitting processes

11.3.1.1 Establish best practices for county and local permitting

The State will leverage its organizational and coordinating power to streamline permitting processes for the many anticipated awardees that will deploy network infrastructure on or in assets owned by counties and localities.

OBAE will publish best practices in broadband permitting policies for counties and localities to consider. These best practices will make 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.

OBAE will also develop a corresponding “PROP Manual” to guide permit applicants through the process, which will be regularly updated and available on the OBAE website.

OBAE is committed to honoring the sovereignty of the 23 Tribes, Nations, and Pueblos that share geography with the State and will establish best practices regarding projects that traverse Tribal lands through ongoing collaboration and resource sharing.

11.3.1.2 Facilitate collaboration with key Department of Transportation and environmental and historic preservation agencies

OBAE will also 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. OBAE can discuss creating standardized templates to simplify the materials required for environmental assessments and allow the same materials to be provided to different agencies where feasible. While OBAE 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.

NMDOT reports that as of January 2023 it is prepared to deploy a new online “ePermit” system, which will help increase the efficiency and transparency of the permitting process for applicants—including subgrantees that will deploy network infrastructure under the BEAD program.⁷⁸

⁷⁸ “State of New Mexico Three-Year Broadband Plan,” OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>, p. 75.

11.3.2 Streamline State permitting processes by developing fast-track permit and pre-approved construction methods

To facilitate awarded projects that intend to cross State-protected lands, the State will discuss streamlining permitting processes with relevant land-controlling State agencies. These efforts may include addressing permitting policies for construction methods that are known to have low impacts on the surrounding rights-of-way. Additionally, the State will identify and publish easement corridors and construction methods likely to receive rapid reviews for applicable protected lands so that potential projects that need to cross land without available roads or rights-of-way may plan their construction to be minimally invasive and maximally cost-effective.

11.3.3 Shrink federal permitting timelines by partnering with NTIA to discuss a streamlined “shot clock” permit process

New Mexico Senator Ben Ray Luján joined senators from multiple states in signing a December 1, 2022 letter to the Secretaries of the U.S. Department of the Interior, U.S. Department of Agriculture, and U.S. Department of Commerce “concerning the extensive delays internet service providers are experiencing when obtaining permit approvals,” citing timelines of 16 to 48 months to permit broadband projects on Bureau of Land Management (BLM) or National Forest Service Land in New Mexico.⁷⁹

To benefit potential awardees that intend to cross federal lands, the State will attempt to shrink permitting timelines for access to federal lands 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 awardees. As the lead federal agency, NTIA can also 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.

11.3.4 Ease permitting for already disturbed land

As noted in OBAE’s Data Collection Annual Report,⁸⁰ OBAE has received specific suggestions regarding permitting. In June 2023, Eastern New Mexico Rural (ENMR) Telephone Cooperative (doing business as Plateau Telecommunications) was awarded a \$50 million grant from NTIA’s

⁷⁹ Senator John Barrasso et al., letter to Secretary Haaland, Secretary Vilsack, and Secretary Raimondo, December 1, 2022, https://www.barrasso.senate.gov/public/_cache/files/8c803ecd-ee57-4d42-8809-4143314ecf92/12.01.2022-broadband-permitting-on-federal-land.pdf.

⁸⁰ “State of New Mexico Data Collection Annual Report, OBAE, October 2023, https://connect.nm.gov/uploads/1/4/1/9/141989814/new_mexico_data_collection_annual_report_-_10022023.pdf. The Data Collection Annual Report contains an evaluation of the role of various State and federal agencies and contains recommendations for future legislation.

Enabling Middle Mile Broadband Infrastructure Program for a \$100 million middle-mile project in New Mexico.⁸¹

Plateau Telecommunications told OBAE that “much of the cost and delays could be avoided if some reliefs were given to pre-disturbed right-of-way. Approximately 98 percent of our projects parallel existing facilities, along existing roads, with other utilities present. Requiring costly and time-consuming surveys provides little benefit to anyone.”

As OBAE noted in the 2023 Data Collection Annual Report, “New Mexico is a checkerboard of different jurisdictions—federal, State, Tribal, county, municipal, land grant, colonias, conservancy district—that do not coordinate nor accept each other’s permit requirements to satisfy their own. Nor do they allow these permitting processes to run in parallel to minimize the overall time it takes to be able to begin construction. This reality can add two years to a construction project, delaying much-needed infrastructure to many remote and rural locations that have no, or limited, connectivity.”⁸² Checkerboard areas can also be an issue for right-of-way where Tribal lands are non-contiguous.

11.4 Address construction costs

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. OBAE will encourage providers to enter into resource sharing agreements as a way to reduce costs and risks.

11.5 Address drop costs

Drop costs, especially in rural areas where houses are often set back far from the public road, can be very high. Since applicants are required to absorb such costs to connect subscribers under BEAD terms, they will factor these costs into cost proposals. Prospects for lowering such costs could lead to lower BEAD outlay requests and therefore more unserved locations that can be connected with Priority Broadband.

OBAE 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, OBAE will offer to disseminate this information to registrants in a prequalification round.

⁸¹ “Funding Recipients: Enabling Middle Mile Broadband Infrastructure Program,” National Telecommunications and Information Administration, <https://broadbandusa.ntia.gov/funding-programs/enabling-middle-mile-broadband-infrastructure-program/funding-recipients#E>. See also: “Funding Awards,” Connect New Mexico, <https://connect.nm.gov/funding-awards.html>.

⁸² “State of New Mexico Data Collection Annual Report,” OBAE, October 2023, https://connect.nm.gov/uploads/1/4/1/9/141989814/new_mexico_data_collection_annual_report_-_10022023.pdf.

The State will convene with incumbent local exchange carriers (ILEC) and competitive local exchange carriers (CLEC) to assess the feasibility of using existing copper telephone wires on utility poles to overlash drop fiber cables. The State will also convene with electric utilities to assess the feasibility of using existing messenger wires that support low-voltage power to lash drop fiber cables.

11.6 Address labor considerations

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

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

During community engagement OBAE identified shortage of PEs in New Mexico and the cost of keeping one on site during construction as a major barrier to cost for BEAD. OBAE will reach out to Regulation and Licensing Department and New Mexico Board of Licensure for Professional Engineers and Surveyors to determine whether OBAE can accept Professional Engineer (PE) certifications from engineers licensed in states other than New Mexico when engineering documentation requires a PE certification is a condition of grant participation. OBAE is committed to encouraging local business participation. If allowed by oversight agencies, use of out of State PE will require additional documentation or certification.

OBAE's workforce development plan is outlined in Section 9**Error! Reference source not found.**

11.7 Reduce overhead costs

The State will work with NTIA to support developing expedited screening for environmental safety evaluations and use NTIA guidance to simplify and help awardees navigate the environmental and historic preservation review process.

OBAE will also either use the existing Connect New Mexico Council which has industry and government representation, utilize OBAE's existing Technical Assistance Program, or create a technical assistance committee consisting of ISP and agency representatives to address BEAD specific Technical Assistance and share expertise and information regarding compliance reporting with awardees.

11.8 Reduce materials costs

The State will encourage BEAD subgrantees to reduce the cost of materials by coordinating to identifying approved vendors that are compliant with Buy America policies and, where applicable, negotiating discounted rates for BEAD awardees.

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

11.9 Connect local and community banks with participants

OBAE will reach out to the Federal Reserve Banks of Dallas and Kansas City (Federal Reserve), as the State is divided into two reserve districts, to obtain a list of credit unions and community banks with unserved and underserved locations in their service areas and for ISPs. In addition, it will request 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. (Please see Section 5.12.2 for more details on letter of credit requirements.)

12. 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 Mexico.

The impacts of climate change are already being felt across New Mexico. As a result, the State began taking steps decades ago to enhance community resilience to drought, flooding, and other risk and hazards associated with a changing climate and enacted regulations that ensure new infrastructure built across the State is constructed according to standards that mitigate likely hazards, as projected in the latest State and Federal climate models.

In accordance with the Disaster Mitigation Act of 2000, the State of New Mexico has published a Statewide Hazard Mitigation Plan (SHMP)⁸³ and assists local entities in publishing their own plans. In the SHMP, the State has worked to identify the hazards most likely to impact New Mexico residents and has aggregated data from numerous sources to identify areas of the State that are most at risk of impact from each hazard identified. The most recent iteration of the SHMP was authored in 2018 and is due to be updated in 2023.

In addition to statewide planning, many permitting requirements and construction standards will govern the construction of BEAD-funded networks. These requirements will be subject to local ordinances. The State has taken steps to ensure local policy makers are taking the latest climate projection data into account as they set their standards and requirements. To this end, the State has prepared resources to support local policy makers to help increase the resilience and adaptability of their jurisdictions. The list of local entities that have published their own hazard mitigation plans includes but is not limited to counties, municipalities, parks, school districts, Tribal Nations, and universities.⁸⁴

Known for its varied topography, New Mexico includes desert terrain, mesas, grassy plains, wooded forests, and mountain peaks. Floods and drought are significant hazards in New Mexico. To that end, the State publishes a State Water Plan and each of the State's 16 water planning regions publishes its own water plan.⁸⁵

⁸³ "New Mexico State Hazard Mitigation Plan," New Mexico Department of Homeland Security and Emergency Management (NMDHSEM), Preparedness Bureau, Mitigation Unit, September 2018, <https://www.nmdhsem.org/wp-content/uploads/2019/06/NM-HMP-Approved-Body-9-13-18-V2-low-res.pdf>; Mitigation Unit, <https://www.nmdhsem.org/preparedness-bureau/mitigation/>.

⁸⁴ "New Mexico Hazard Mitigation Plan Status, current as of 12/31/2021," NMDHSEM, January 31, 2022, <https://www.nmdhsem.org/wp-content/uploads/2022/01/NM-Community-HMP-Status-01.31.22.pdf>.

⁸⁵ "Water Planning in New Mexico," Office of the State Engineer, Interstate Stream Commission, <https://www.ose.state.nm.us/Planning/>. See also, "State Water Plan," Office of the State Engineer, Interstate Stream Commission, <https://www.ose.state.nm.us/Planning/swp.php>.

The State regularly updates its Communities at Risk Assessment Plan and the 64 Community Wildfire Protection Plans (CWPP) are also regularly updated.

New Mexico aims to play its part in tackling climate change, and has produced Climate Strategy Reports, the most recent in 2021.⁸⁶ As Governor Michelle Lujan Grisham has stated,⁸⁷ “New Mexico is serious about climate change—and we have to be. We are already seeing drier weather and rising temperatures. This administration is committed not only to preventing global warming, but also preparing for its effects today and into the future.”

12.1 Identifying geographic areas subject to initial hazard screening

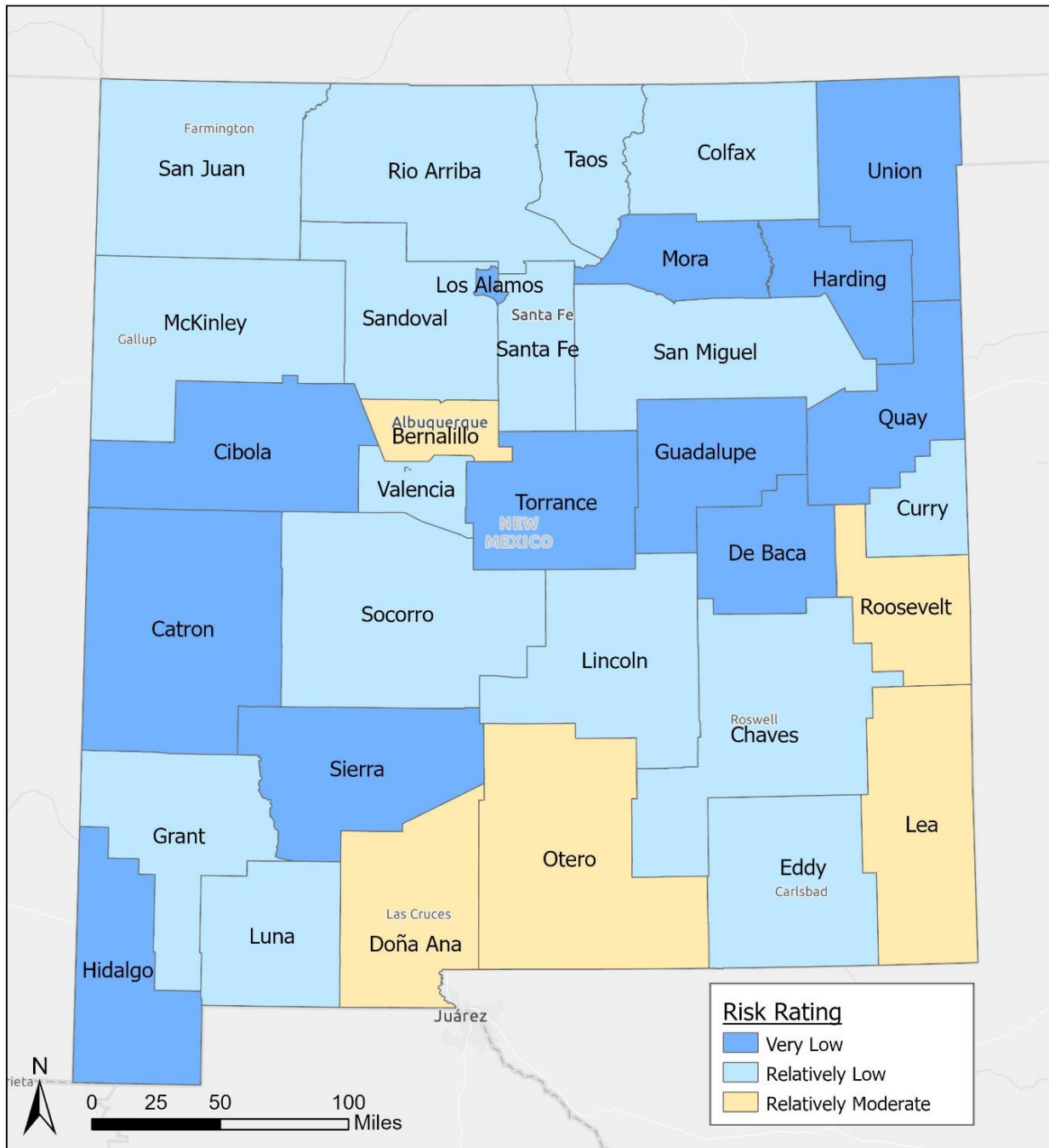
The SHMP will serve as the main source for evaluating and locating high risk areas, while the State Water Plan and Communities at Risk Assessment Plan (for wildfire risk) will also inform the process. Specifically, this analysis will employ the classification scheme of the Federal Emergency Management Agency (FEMA), assessing each county’s risks relative to other counties around the nation, and ranking 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 (80th-100th percentile).

Relative to most other states, New Mexico does not face significant risks from natural hazards or disasters. According to FEMA’s overall risk index, none of New Mexico’s 33 counties are identified as being at Very High or Relatively High risk from natural disaster and weather hazards. Five counties are identified as being at Relatively Moderate risk, as shown in the map below: Bernalillo, Doña Ana, Lea, Otero, and Roosevelt.

⁸⁶ “2021,” New Mexico Interagency Climate Change Task Force, https://www.climateaction.nm.gov/wp-content/uploads/sites/39/2023/07/NMClimateChange_2021_final.pdf.

⁸⁷ “New Mexico Climate Change Action,” New Mexico Interagency Climate Change Task Force, <https://www.climateaction.nm.gov/>.

Figure 3: Composite hazard risk scores in New Mexico



FEMA Natural Hazard Risk Rating

Basemap: ESRI Light Gray Base
 Coordinate System: NAD 1983 State Plane New Mexico Central

Created by: CTC Technology and Energy, 20230925
 Data Source: FEMA National Risk Index by County gdb
 Risk Rating based on fifteen individual natural hazard risks

12.2 Characterizing which weather and climate hazards may be most important to account for and respond to these in areas and over time

Wildfires are the top climate risk in New Mexico, followed by floods. Drought affects community resilience and the ability to withstand all other climate hazards.

Other threats include high winds from occasional tornadoes and thunderstorms as well as landslides, but these threats are less likely to impact New Mexico communities or are less likely to cause serious damage over the useful life of BEAD funded infrastructure.

To identify where hazards were responsible for driving the composite riskiness of the areas identified above, the State analyzed the estimated annual losses to buildings⁸⁸ for individual hazards across the State in order to understand the risk to BEAD assets associated with individual hazards. The contextualizing narratives are adapted from the SHMP.

12.2.1 Inland flooding

Flooding is the most frequent and costly natural hazard in the United States. Nationwide, hundreds of floods occur each year, making flooding one of the most common hazards in all 50 States and U.S. territories. Most injuries and deaths from flooding happen when people are swept away by flood currents, and most property damage results from inundation by sediment-filled water. The majority of flood events in the United States involve inundation of floodplains. This type of flooding is referred to as *riverine flooding* and is characterized by a gradual and predictable rise in a river or stream due to persistent precipitation. After the stream or river overflows its banks, the surrounding area often remains under water for an extended period of time.

Flash floods are common and frequent in New Mexico. Flash floods cannot be predicted; however, some conditions are known to make certain areas, such as acequias (community-based aqueducts) and arroyos (common water evacuation routes) more vulnerable to flash floods. Additionally, the presence of hydrophobic soils following high-severity wildfire increases flood hazard in and downstream of the affected watershed. Alluvial fans and alluvial fan flood hazards exist in the State. Alluvial fan flood hazard characteristics include heavy sediment/debris loads and high velocity flows.

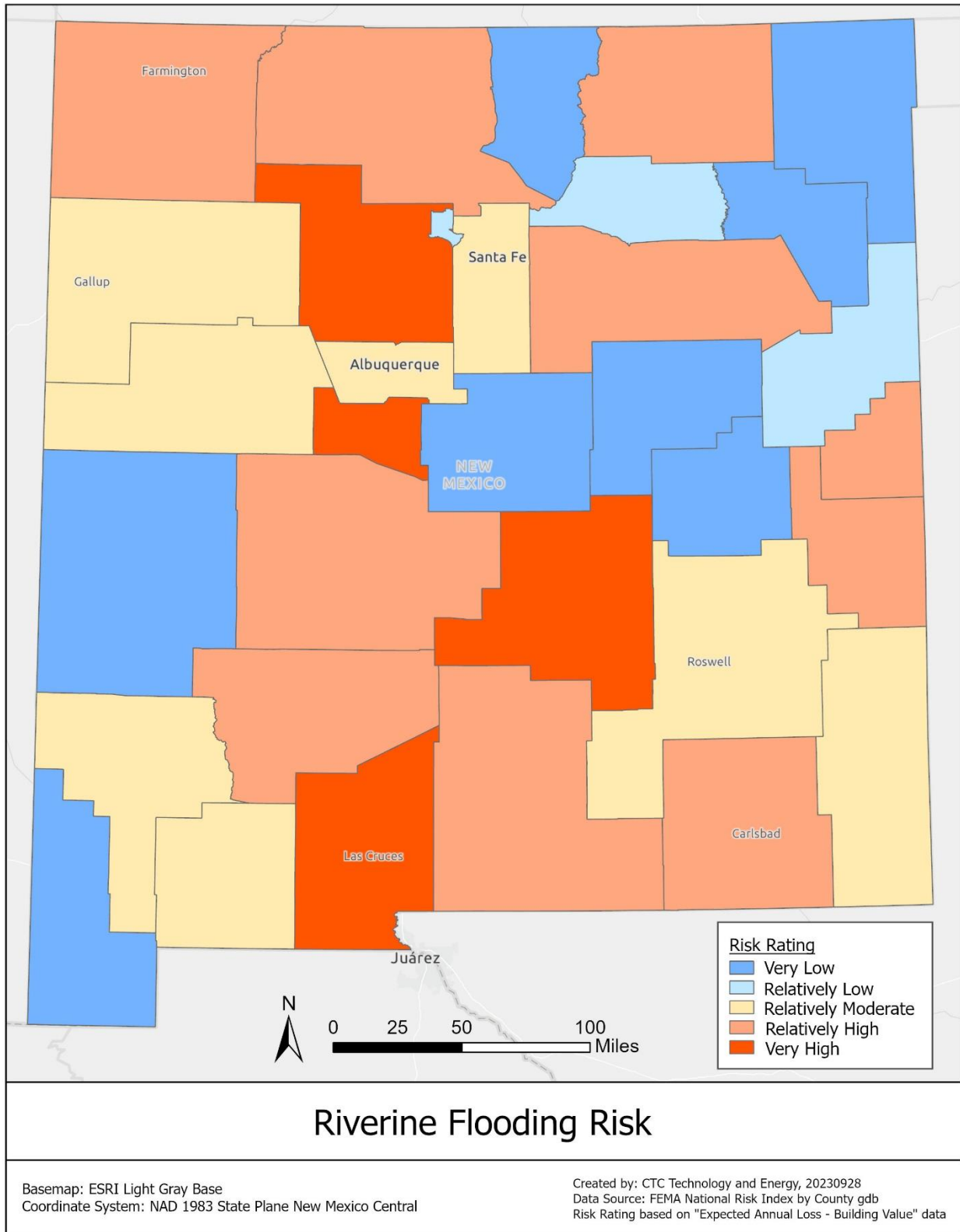
Flash flooding is the second greatest weather hazard in New Mexico. The flash flooding problem stems from a number of factors. During the summer (June through August period), thunderstorm frequency in certain parts of New Mexico is among the highest in the Nation. Excessive moisture during the summer can lead to large volume runoffs enhanced by the terrain.

⁸⁸ "Expected Annual Loss," Federal Emergency Management Agency, <https://hazards.fema.gov/nri/expected-annual-loss>.

Flooding risk is higher in areas subject to wildfires. Increased long term risk of flooding will continue for years after a watershed has experienced a burn. Ongoing concerns are the increased potential for flooding and debris flow plus large amounts of sediment being transported from the burn scar areas. Additionally, debris flows could create temporary dams or sediment plugs along drainage courses that could fill and breach, sending flood waves downstream, potentially damaging infrastructure.

As shown in the map below, the following counties are at Very High risk from riverine flooding, according to FEMA data: Doña Ana, Lincoln, Sandoval, and Valencia. The following counties are at Relatively High risk from riverine flooding: Colfax, Curry, Eddy, Otero, Rio Arriba, Roosevelt, San Juan, San Miguel, Sierra, and Socorro. Those planning BEAD-funded projects in these counties will need to take mitigation measures.

Figure 4: Risk of inland flooding in New Mexico



12.2.2 High winds

Wind is defined as the motion of air relative to the earth's surface, and the hazard of high wind is commonly associated with severe thunderstorm winds (exceeding 58 mph) as well as tornadoes, hurricanes, tropical storms and nor'easters. High winds can also occur in the absence of other definable hazard conditions, events often referred to as simply "windstorms." High wind events might occur over large, widespread areas or in a very limited, localized area. They can occur suddenly without warning, at any time of the day or night. The entire State of New Mexico is subject to high wind conditions, but areas are most vulnerable where the population is concentrated and buildings are of older design.

Windstorms are both high velocity straight-line winds and violent wind gusts not associated with thunderstorms. Dust storms are strong windstorms that fill the air with thick dust, sometimes reducing visibility to resemble a dense fog. Other wind events include wet or dry microbursts that may produce damaging convective winds and dust devils even on a clear and otherwise calm day.

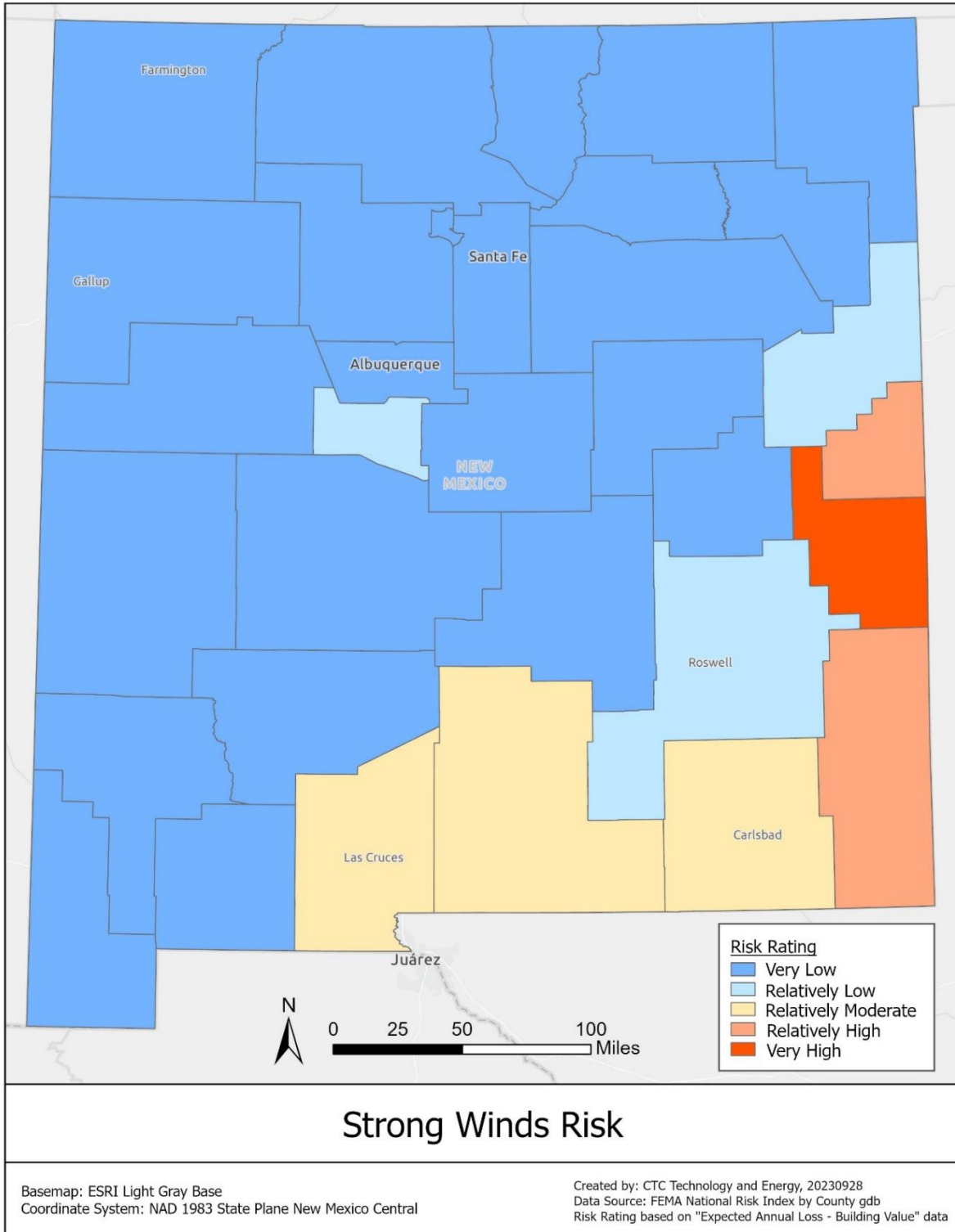
The State of New Mexico experiences high wind events annually, based on seasonal meteorological patterns and local topographical conditions. The north/southeast section of the State is susceptible to high wind events. One type of wind event is the gap wind or canyon wind. This occurs as the wind rushes over mountain passes, "gaps," in the ridgeline of a mountain chain. Wind speeds are generally strongest at narrow canyon openings. Another type of wind event is referred to as the spillover wind, which occurs when cold air to the east of the mountains has a sufficient depth (approximately 10,000 feet above sea level) to overtop the Sandia and Manzano Mountain ranges and spill over to the west, typically down slope toward the Albuquerque metropolitan area.

High winds are difficult to predict precisely in pattern, frequency, and degree of severity. The windiest time of the year is during the spring months of April and May, with March and June often times not far behind. No areas of New Mexico are immune from damaging high winds. High wind is a fact of life for State residents, especially in the spring. Extremely high velocity wind over a prolonged period is rare. Such occurrences can result in downed power lines, roof damage, trees being blown down, and difficulty in controlling high profile vehicles on the highways.

Microburst wind damage is more common, since it is often associated with powerful downdrafts originating from thunderstorms. These winds are of relatively short duration. Certain areas of the State are subject to hazardous dust storms when high winds blow over terrain that is relatively devoid of vegetation. The southwestern part of the State between Deming and the Arizona border is especially susceptible to this hazard, and highway closure is sometimes required. Localized dust storms can arise unexpectedly when high winds pick up dust and debris from construction sites. In the map below, Roosevelt County is at Very High risk of wind events, and

two of its neighboring counties, Lea and Curry, are at Relatively High risk of wind events. Those planning BEAD-funded projects in these counties will need to take mitigation measures.

Figure 5: Risks from strong winds in New Mexico



12.2.3 Tornadoes

A tornado is an intense rotating column of air, extending from a thunderstorm cloud system. Average winds in a tornado, although never accurately measured, are thought to range between 100 and 200 mph, but some may have winds exceeding 300 mph. The following are NWS definitions of a tornado and associated terms:

- Tornado – A violently rotating column of air that is touching the ground.
- Funnel cloud – A rapidly rotating column of air that does not touch the ground.
- Downburst – A strong downdraft, initiated by a thunderstorm, which induces an outburst of straight-line winds on or near the ground. They may last anywhere from a few minutes in small scale microbursts to periods of up to 20 minutes in larger, longer macro-bursts. Wind speeds in downbursts can reach 150 mph and therefore can result in damages similar to tornado damages.

Tornadoes cause an average of 70 fatalities and 1,500 injuries in the U.S. each year. The strongest tornadoes have rotating winds of more than 250 mph and can be one mile wide and stay on the ground over 50 miles. Tornadoes may appear nearly transparent until dust and debris are picked up or a cloud forms within the funnel. The average tornado moves from southwest to northeast, but tornadoes have been known to move in any direction. The average forward speed is 30 mph but may vary from nearly stationary to 70 mph.

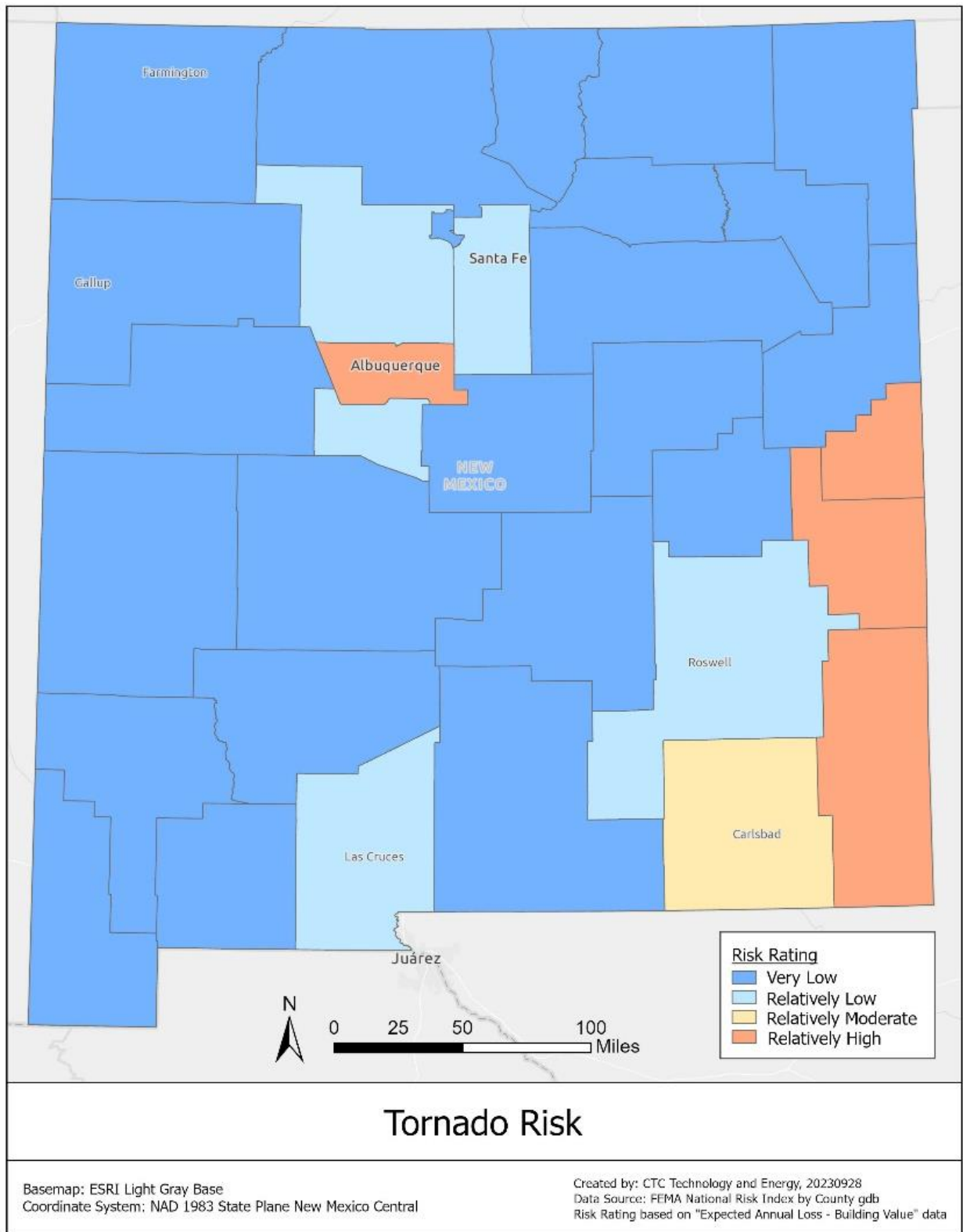
Damages from tornadoes result from extreme wind pressure and windborne debris. Because tornadoes are generally associated with severe storm systems, they are often accompanied by hail, torrential rain, and intense lightning. Tornadoes can bring down power lines. A tornado can cause anywhere from minor damage to total destruction of facilities and infrastructure depending on the size of the event. Extensive damages are anticipated.

New Mexico lies along the southwestern edge of the nation's maximum frequency belt for tornadoes, often referred to as "tornado alley," which extends from the Great Plains through the central portion of the U.S. Generally, the eastern portions of New Mexico have a higher frequency of tornadoes; however, every county in the State has the potential to experience tornadoes.

Tornadoes have been verified in most New Mexico counties. The highest risk of tornadoes is in the east during April through July, but tornadoes are possible with any thunderstorm. New Mexico averages about 10 tornadoes in a year. New Mexico experiences mostly weak, short-lived tornadoes. Strong tornadoes, while rare, are possible and occur about once every 10 years.

The map below shows that, according to the most current FEMA data, the following four counties have a Relatively High risk of tornadoes: Bernalillo, Curry, Lea, and Roosevelt.

Figure 6: Risks from tornadoes in New Mexico



12.2.4 Hail

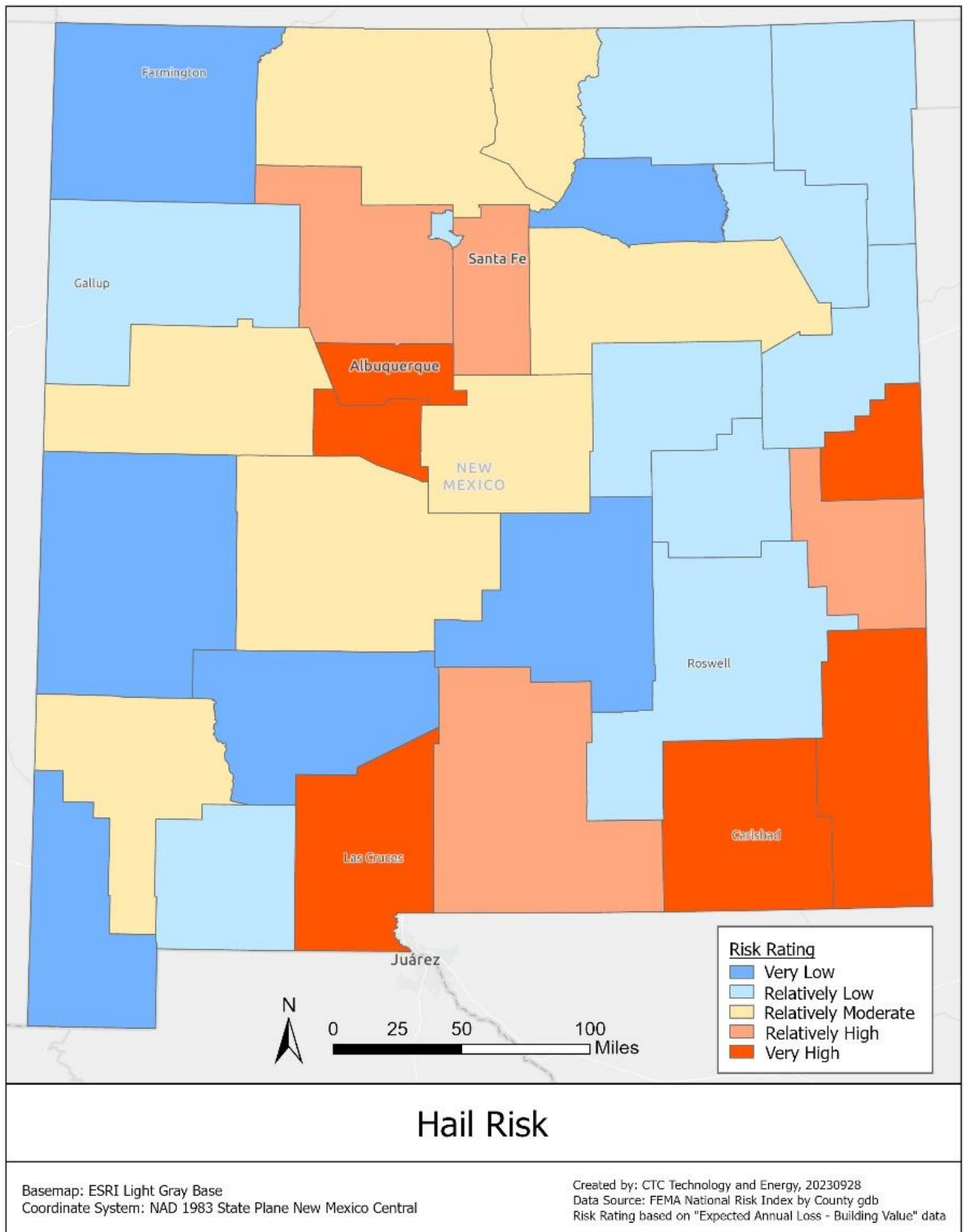
Hail is frozen water droplets formed inside a thunderstorm cloud. They are formed during the strong updrafts of warm air and downdrafts of cold air, when the water droplets are carried well above the freezing level to temperatures below 32 degrees F, and then the frozen droplet begins to fall, carried by cold downdrafts, and may begin to thaw as it moves into warmer air toward the bottom of the thunderstorm. This movement up and down inside the cloud, through cold then warmer temperatures, causes the droplet to add layers of ice and can become quite large, before it finally falls to the ground as hail.

All areas of the State have thunderstorms. New Mexico averages 25 thunderstorm events per year. According to the National Weather Service (NWS), the thunderstorm season in New Mexico begins over the high plains in the eastern part of the State in mid-to-late April, peaks in May and June, declines in July and August, and then drops sharply in September and October. In the western part of the State, thunderstorms are infrequent during April, May, and June, increase in early July and August, and then decrease rapidly in September. Over the central mountain chain, thunderstorms occur almost daily during July and August, especially over the northwest and north central mountains.

Severe thunderstorms are reported each year in nearly all New Mexico counties. The NWS definition of a severe thunderstorm is a thunderstorm with any of the following attributes: downbursts with winds of 58 miles (50 knots) per hour or greater (often with gusts of 74 miles per hour or greater), hail 0.75 of an inch in diameter or greater, or a tornado. Typical thunderstorms can be three miles wide at the base, rise to 40,000-60,000 feet into the troposphere, and contain half a million tons of condensed water.

In New Mexico, as shown in the map below, the following counties are at Very High risk from hail: Bernalillo, Curry, Doña Ana, Eda, Lea, and Valencia. Additionally, the following counties are at a Relatively High risk of hail: Otero, Roosevelt, Sandoval, and Santa Fe.

Figure 7: Risks from hail in New Mexico

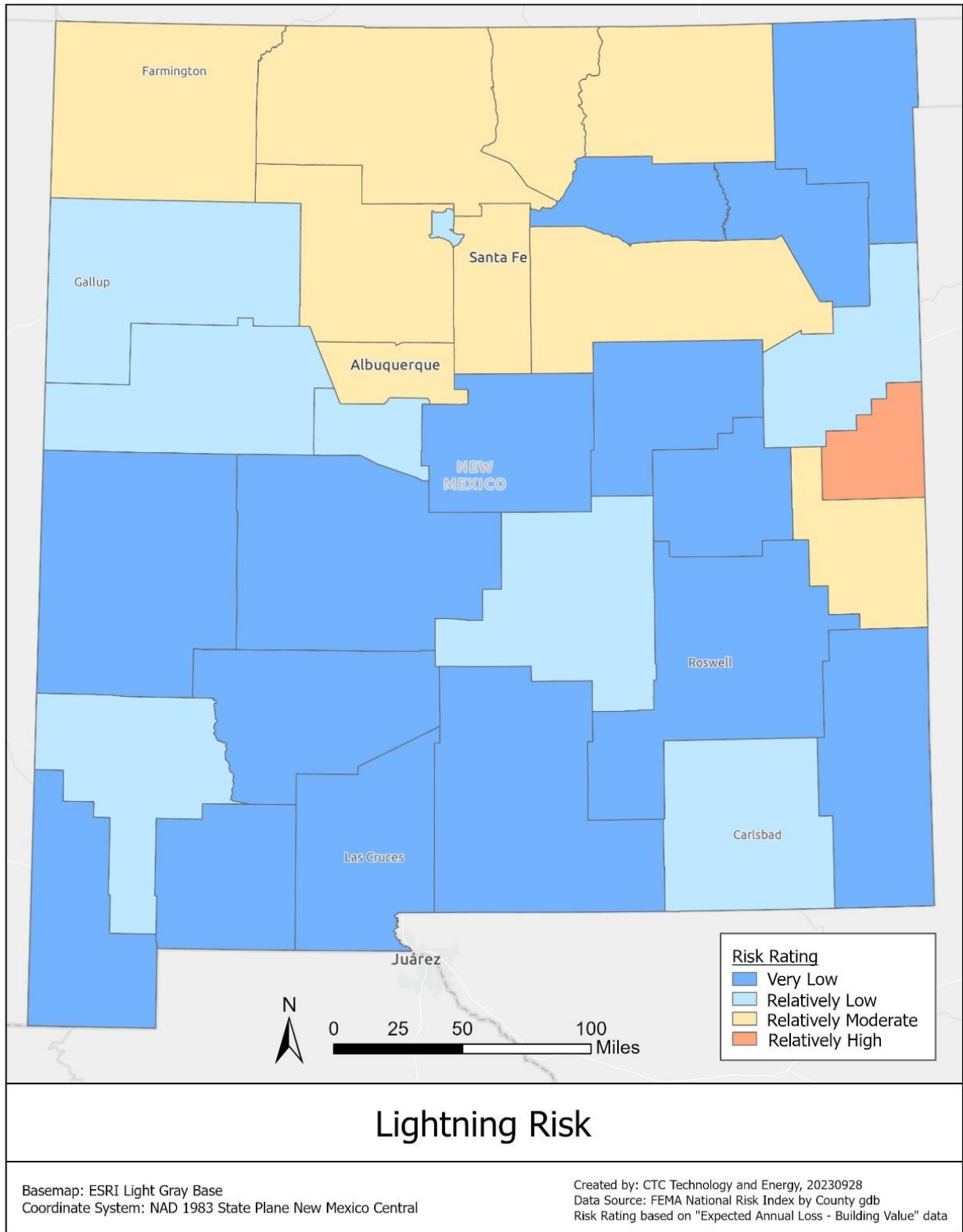


12.2.5 Lightning

Lightning and the subsequent fires may destroy a facility or property. New Mexico routinely has thunderstorms that have between 13 and 106 lightning strikes per minute. While the entire State is at risk for lightning events, some areas of the State have higher concentrations of them. Lightning is a strong risk to BEAD-funded broadband equipment, but equipment makers and ISPs have developed mitigation measures for this known hazard.

As shown in the map below, Curry County has a Relatively High risk of lightning while the following counties have a Relatively Moderate risk of lightning, according to FEMA data: Bernalillo, Colfax, Rio Arriba, Roosevelt, San Juan, Sandoval, Santa Fe, and Taos.

Figure 8: Risks from lightning in New Mexico



12.2.6 Winter storms

Most winter precipitation in New Mexico is associated with Pacific Ocean storms as they move across the State from west to east. As the storms move inland, moisture falls on the coastal and inland mountain ranges of California, Nevada, Arizona, and Utah. If conditions are right, the remaining moisture falls on the slopes of New Mexico's high mountain chains.

Winter storms often have the effect of disrupting transportation and commerce. Damage to telephone poles and electrical lines from winter storms could be a threat to BEAD deployments throughout the State, and awardees will need to account for associated risks in planning and construction.

No part of the State is immune from severe winter storms, whether extreme cold, heavy snow, ice storm, or other cold weather conditions. The mountainous areas of the State are more likely to receive snow and cold than the plains and desert, and BEAD deployments in high altitude areas should be prepared for these conditions.

Ice storms are especially harmful to infrastructure, for example damaging power lines. As shown in the map below, the following counties are at Relatively High risk from ice storms: Chaves, Curry, Eddy, Lea, and Otero.

FEMA defines winter weather as "winter storm events in which the main types of precipitation are snow, sleet, or freezing rain."⁸⁹

As shown in the map below, the southeastern portion of New Mexico is generally at Very High risk of winter weather.

⁸⁹ "Winter Weather," FEMA, <https://hazards.fema.gov/nri/winter-weather>.

Figure 9: Risks from ice storms in New Mexico

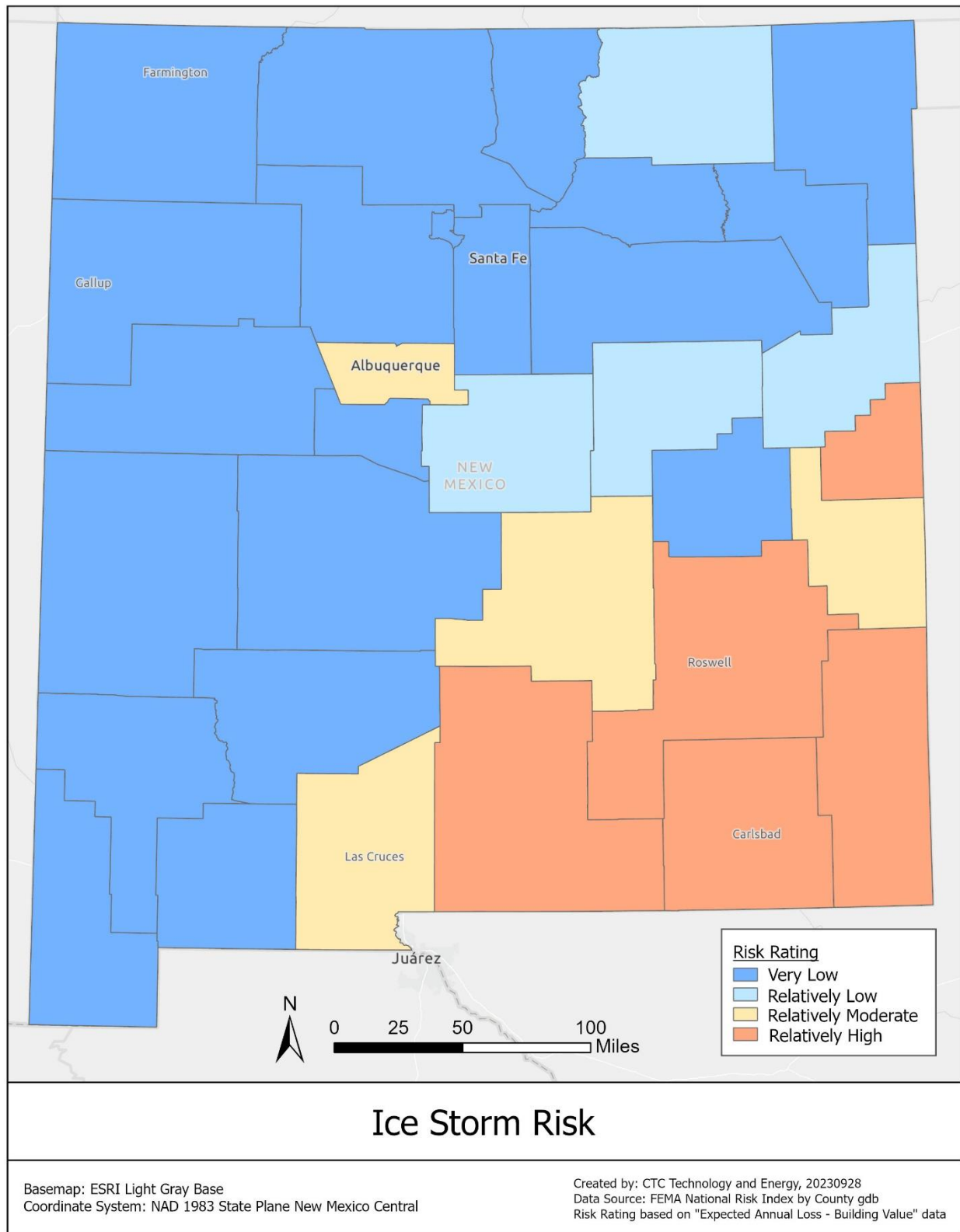
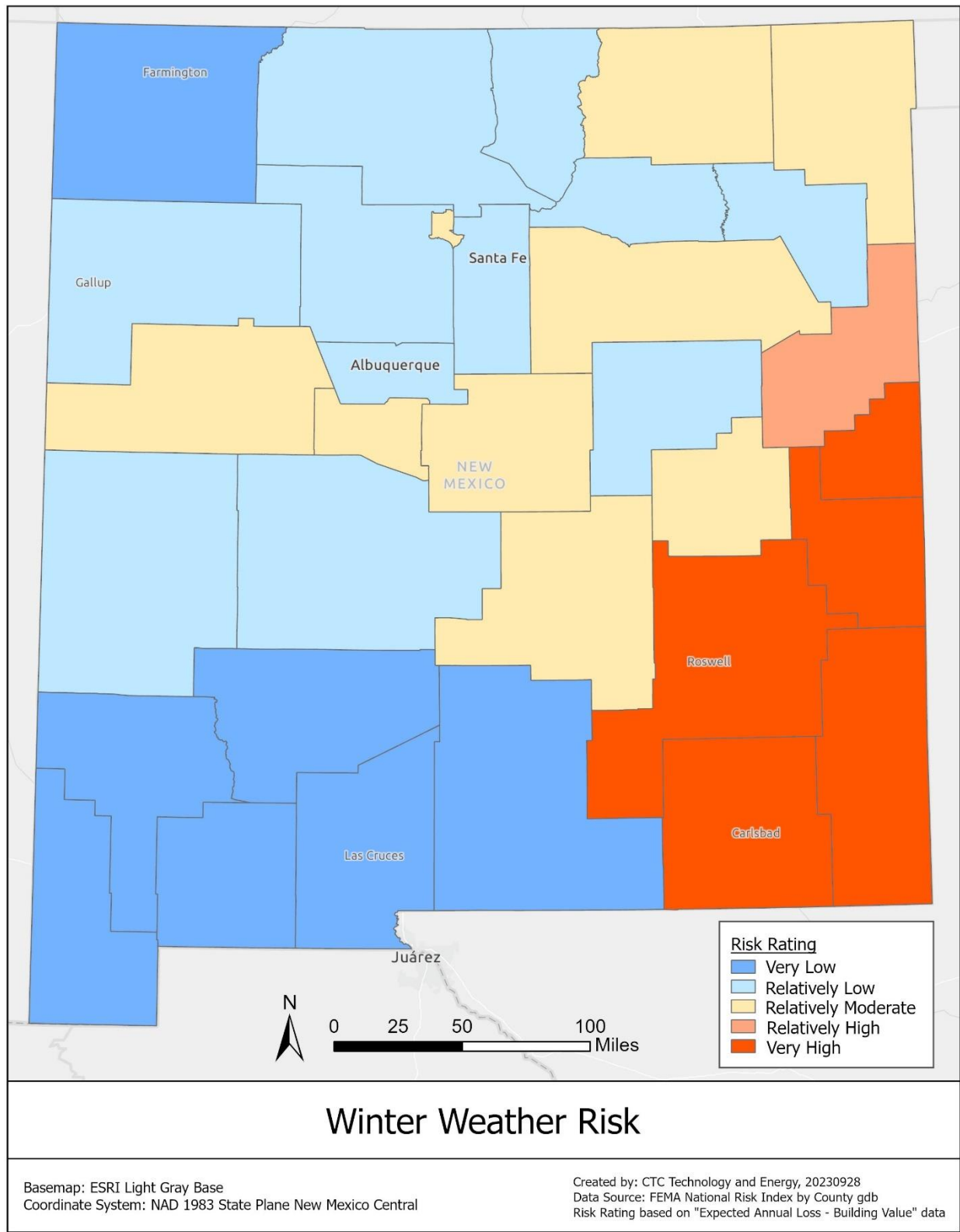


Figure 10: Risk of winter weather in New Mexico



12.2.7 Cold waves

Winter storms (FEMA uses the term “cold waves” to describe “a rapid fall in temperature within 24 hours and extreme low temperatures for an extended period”)⁹⁰ have significant snowfall, ice, and/or freezing rain, with the quantity of precipitation variable by elevation. According to the National Weather Service, heavy snowfall is four inches or more in a 12-hour period, or six or more inches in a 24-hour period in non-mountainous areas; and 12 inches or more in a 12-hour period or 18 inches or more in a 24-hour period in mountainous areas. Winter storms vary in size and strength and include heavy snowfalls, blizzards, freezing rain, sleet, ice storms, blowing and drifting snow conditions, and extreme cold.

A variety of weather phenomena and conditions can occur during winter storms. For clarification, the following are NWS approved definitions of winter storm elements:

- Heavy snowfall: The accumulation of six or more inches of snow in a 12-hour period or eight or more inches in a 24-hour period
- Blizzard: The occurrence of sustained wind speeds in excess of 35 mph accompanied by heavy snowfall or large amounts of blowing or drifting snow
- Ice storm: An occurrence where rain falls from warmer upper layers of the atmosphere to the colder ground, freezing upon contact with the ground and exposed objects near the ground; if a severe winter storm were to cause a power failure, as would be likely with an ice storm, the effect could be very serious anywhere in the State
- Freezing drizzle/freezing rain: The effect of drizzle or rain freezing upon impact on objects that have a temperature of 32°F or below
- Sleet: Solid grains or pellets of ice formed by the freezing of raindrops or the refreezing of largely melted snowflakes; this ice does not cling to surfaces
- Wind chill: An apparent temperature that describes the combined effect of wind and low air temperatures on exposed skin

Most winter precipitation in New Mexico is associated with Pacific Ocean storms as they move across the State from west to east. As the storms move inland, moisture falls on the coastal and inland mountain ranges of California, Nevada, Arizona, and Utah. If conditions are right, the remaining moisture falls on the slopes of New Mexico’s high mountain chains.

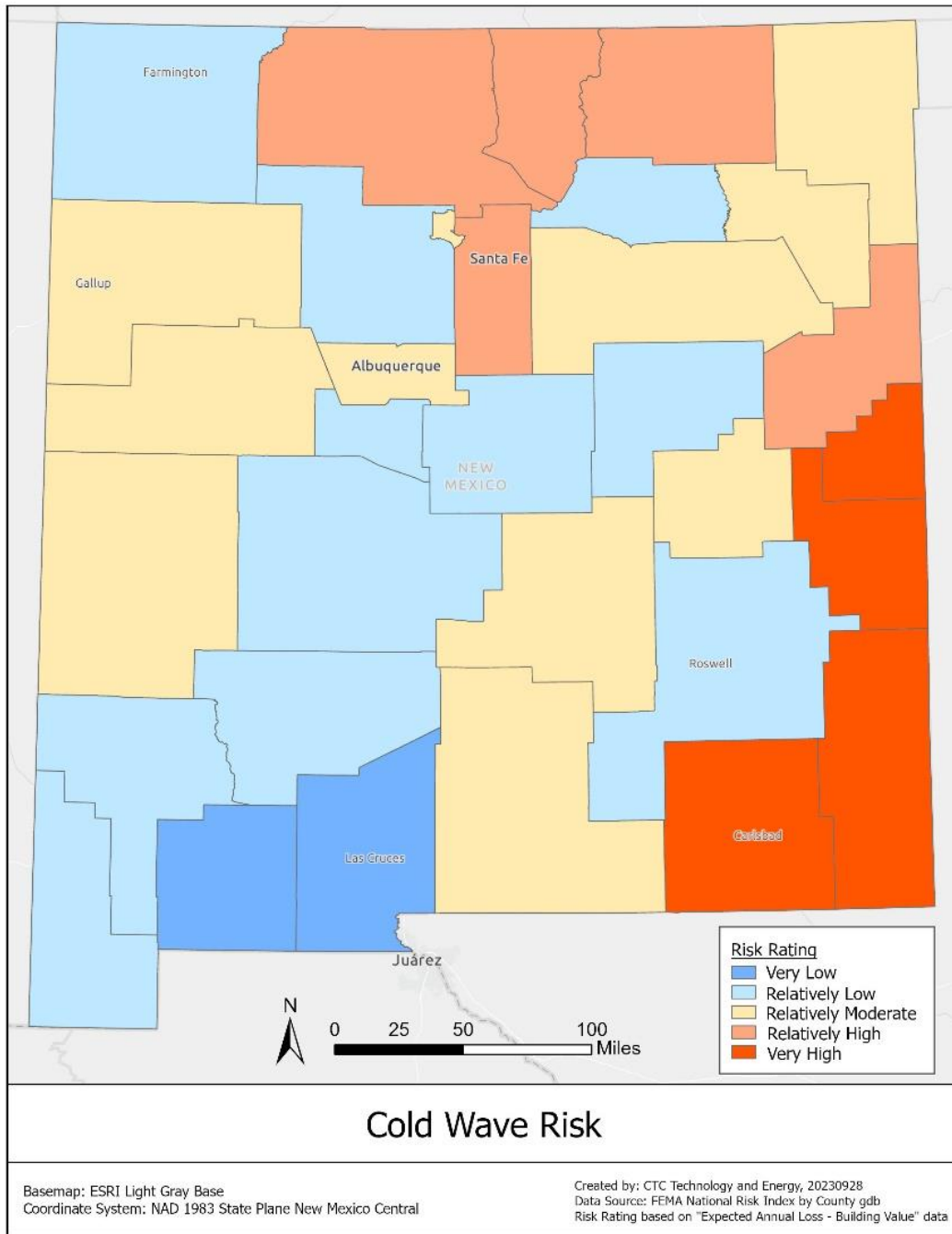
No part of the State is immune from severe winter storms, whether extreme cold, heavy snow, ice storm, or other cold weather conditions. The mountainous areas of the State are more likely

⁹⁰ “Cold Wave,” FEMA, <https://hazards.fema.gov/nri/cold-wave>.

to receive snow and cold than the plains and desert, and those deploying BEAD infrastructure should plan accordingly.

As shown below, the following counties are at Very High risk from cold waves: Curry, Eddy, Lea, and Roosevelt. The following counties are at Relatively High risk from cold waves: Colfax, Quay, Rio Arriba, Santa Fe, and Taos.

Figure 11: Risks from cold waves in New Mexico



Accurate methods to quantify potential future damage to individual structures are not readily available. Therefore, it is not possible to specify which critical facilities are vulnerable to cold waves and severe winter storms.

12.2.8 Wildfires

The threat of wildfires continues to be the number one natural hazard facing the State. During any drought, wildfire risks naturally increase. BEAD-funded deployments will need to take into account standard mitigation measures, such as redundant power and redundant routes.

A wildfire means a fire burning uncontrolled on lands covered wholly or in part by timber, brush, grass, grain or other inflammable vegetation. Wildfires may also lead to mudslides, floods, and debris flows in areas where the fire removes the vegetative covering along slopes or burns hot enough to create hydrophobic soils (heat damaged soils that resist water penetration).

Wildfires can occur at any time of day and during any month of the year, but the peak fire season in New Mexico is normally from March through July. The length of the fire season and the peak months vary from year to year. Generally, fires are more likely when vegetation is dry from a winter with little snow and/or a spring and summer with sparse rainfall, especially if wet antecedent conditions produced an abundance of fine fuels.

The Rio Grande, the second largest river in the southwestern United States, features a substantial bosque, or riverside cottonwood forest, which extends some 200 miles through New Mexico, from Santa Fe south to the Bosque del Apache National Wildlife Refuge. This riparian forest ecosystem consists largely of cottonwoods, willows, salt cedar, and other native and invasive species. When these areas are stressed by drought, they become tinderboxes.

The only natural cause of wildfire in New Mexico is lightning; however, human carelessness and arson account for the larger portion of all wildfires in the State.

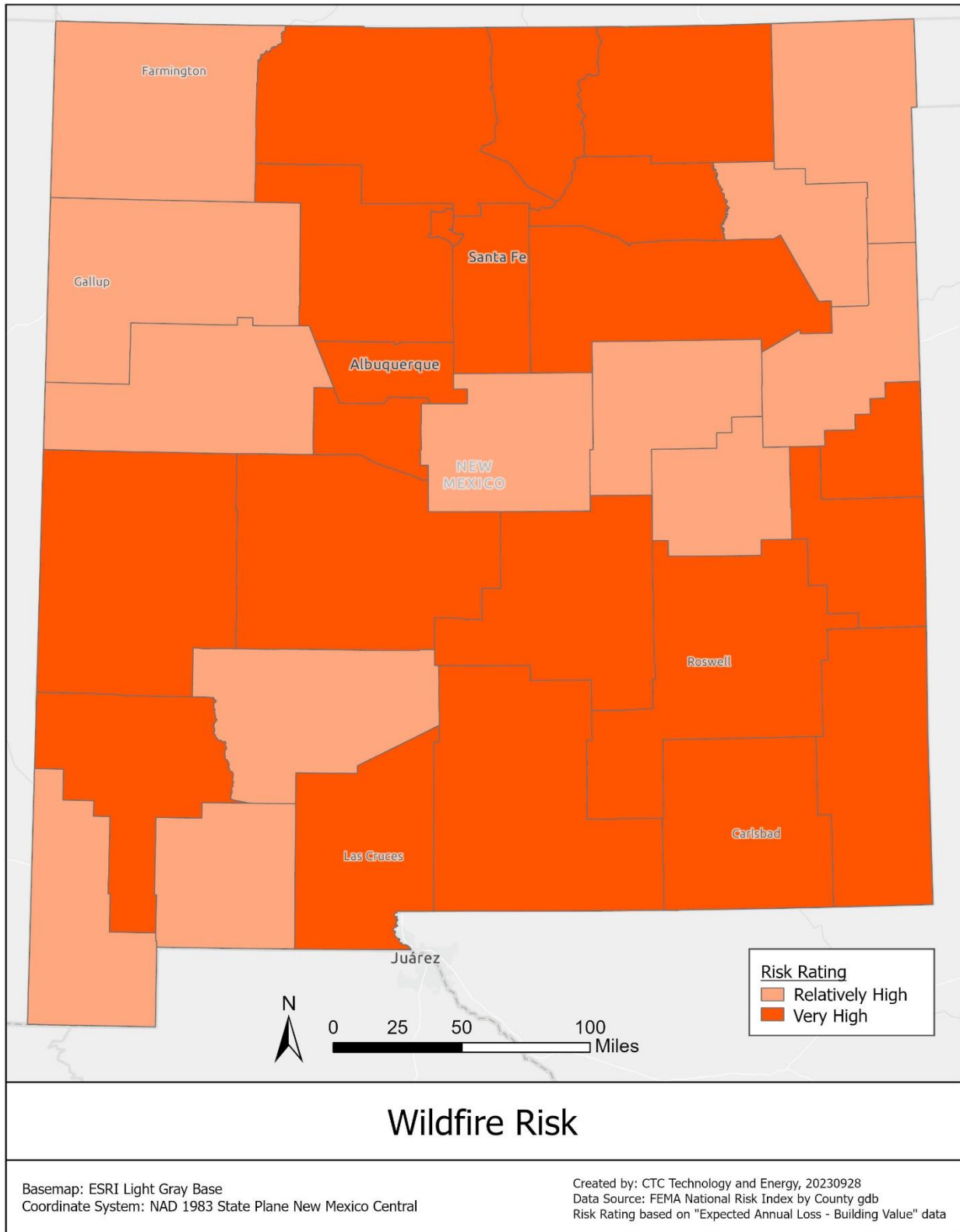
The New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Forestry Division⁹¹ regularly updates its Communities At Risk Assessment Plan. The most recent plan, dated 2022, lists 878 communities at risk of wildfire identified in 64 Community Wildfire Protection Plans (CWPPs).⁹² Of those 878 communities, 432 are listed as High Risk and these High-Risk communities are located throughout New Mexico.

As shown in the map below, all of New Mexico is at Very High or Relatively High risk from wildfires.

⁹¹ "Forestry Home," EMNRD, <https://www.emnrd.nm.gov/sfd/>.

⁹² "2022 Community At Risk Assessment Plan," EMNRD Forestry Division, https://www.emnrd.nm.gov/sfd/wp-content/uploads/sites/4/2022-CAR-Plan-Update_FINAL.pdf.

Figure 12: Risks from wildfires in New Mexico



12.2.9 Landslides

Landslides are the downward and outward movement of rock or soil on slopes. Although generally associated with mountainous regions, sometimes they can occur in low-relief areas. Human activity can potentially promote landslide activity. These activities include steep slopes created during excavations or road cuts, unstable mine waste dumps or tailings piles, or saturation of slopes (e.g., due to irrigation or irrigation ditches).

The term “landslide” encompasses five modes of slope movement: falls, topples, slides, spreads, and flows. These are further subdivided by the type of geologic material (bedrock, debris, or earth). Debris flows (commonly referred to as mudflows or mudslides) and rock falls are examples of common landslide types.⁹³

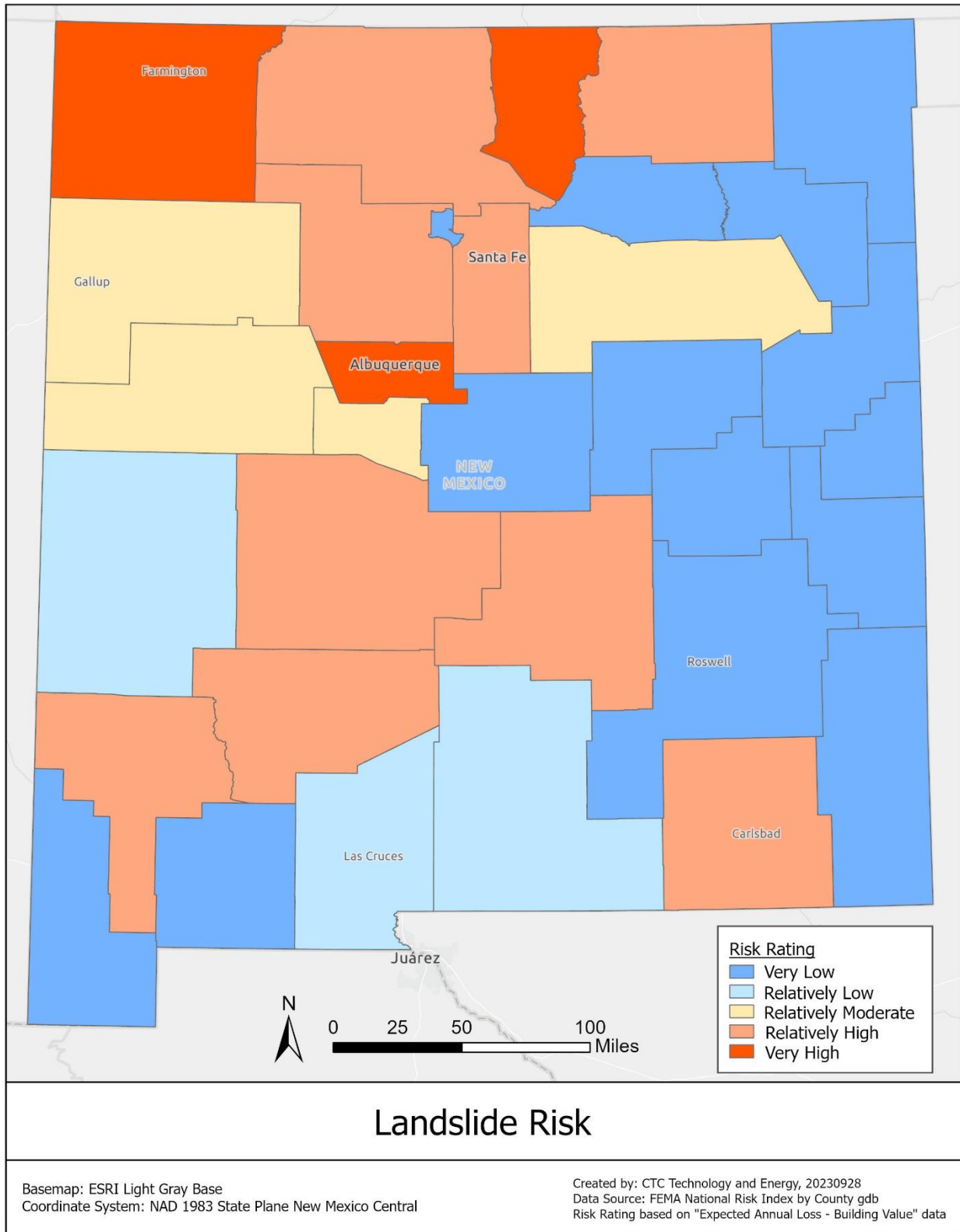
Although frequently associated with areas of high rainfall, landslides are a potential hazard in arid or semi-arid States like New Mexico. Landslides in New Mexico range from large, slow-moving, deep-seated masses, which can destroy structures by gradual movement, to shallow, fast-moving debris flows that threaten life and property. Of the various landslide phenomena, debris flows and rockfalls pose the greatest hazards to New Mexico.

Landslides destroy or severely damage buildings and other infrastructure near the site of a landslide.

More frequent high-magnitude precipitation events would cause more frequent debris flows across the State. Also, the severity of debris flows would correlate to the intensity of these precipitation events. Sustained periods of higher-than-normal moisture could possibly result in more rockfall and deep-seated landslide events. As shown in the map below, the following counties are at Very High risk from landslides: Bernalillo, San Juan, and Taos. The following counties are a Relatively High risk from landslides: Colfax, Eddy, Lincoln, Luna, Rio Arriba, Sandoval, Santa Fe, Sierra, and Socorro.

⁹³ “What is a landslide and what causes one?” U.S. Geological Survey, <https://www.usgs.gov/faqs/what-landslide-and-what-causes-one>.

Figure 13: Risks from landslides in New Mexico



12.2.10 Drought

In New Mexico, drought is a regular event. Experts predict that periodic drought conditions are likely to continue for the foreseeable future. Drought increases the probability and severity of wildfire. Drought also increases the severity of flash flooding due to soils becoming hydrophobic, repelling or incapable of dissolving in water, resulting in increased runoff and erosion.

Drought is monitored nationwide by the National Drought Mitigation Center (NDMC).⁹⁴ Indicators are used to describe broad scale drought conditions across the U.S. Indicators correspond to the intensity of drought. NDMC regularly updates its map of conditions for New Mexico.⁹⁵

12.3 Characterizing weather and climate risks to new infrastructure deployed using BEAD program fund for the next 20 years

The top natural hazard risks impact broadband infrastructure in the following ways: through power outages⁹⁶, through equipment damage⁹⁷ and through signal degradation.⁹⁸

Table 16: Threats to infrastructure posed by weather and climate risks

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

Strong winds, hurricanes, ice storms, and other similar climate risks can cause power lines to go down or power to be turned off for safety resulting in a break in internet accessibility. Additionally, aerial fiber 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

⁹⁴ National Drought Mitigation Center, <https://drought.unl.edu/>.

⁹⁵ "New Mexico," NDMC, <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NM>.

⁹⁶ "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>.

⁹⁷ "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/>.

⁹⁸ "Does Rain Affect WiFi?", WXResearch, May 10, 2023, <https://wxresearch.org/does-rain-affect-wifi/>.

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.

Wildfires, the most prevalent hazard in New Mexico, can cause significant damage to broadband equipment and to power infrastructure.

12.4 Strategies for mitigating climate risks

Network infrastructure deployment—especially wireline—generally builds in principles of resilient and reliable networks, which mitigate risks against natural hazards. Since BEAD awardees will be familiar with these practices and incentivized by their profit motive to deploy resilient network technology, the State will focus on providing guidance in areas where additional risk mitigation techniques should be considered. The following subsections discuss both hazard mitigation best practices that the anticipated BEAD funded projects in New Mexico are likely to include, and how the State will adopt processes to ensure climate resiliency.

12.4.1 Hazard mitigation for anticipated BEAD-funded projects in New Mexico

BEAD will prioritize fiber optic deployments in New Mexico but alternative technologies such as fixed wireless may make up a relatively significant portion of the BEAD deployments, as fixed wireless deployments leverage a lower initial cost and can deploy faster (though they incur higher ongoing maintenance costs and per-subscriber equipment expenses).

Furthermore, as noted in the Five-Year Action Plan, New Mexico’s topography will hinder the deployment of underground fiber in some areas. Dry and rocky areas in New Mexico—both lowland desert and highland mountain areas—challenge any design that calls for buried cable. In sandy areas, in contrast, erosion is a threat to buried cables; dry arroyos are subject to flash floods, so cables installed there have to be deeply buried.

Areas at high altitudes have especially long winters with a correspondingly short season for broadband deployment and construction. And some parts of New Mexico are comparable to Alaska with regard to the remoteness of the land and the difficulty of housing construction workers.

Fiber optic cable is one of the most resilient media for broadband: it is well encased and protected and does not require power except for a limited amount of network equipment huts and locations with active electronics.

Mitigating current climate events are typically incorporated into the practices of any ISP, who has a vested interest in ensuring business continuity to manage customer satisfaction and

operational costs. Burying fiber is the best mitigation to natural hazards, but they too should be supplemented with standard best practices optimizing network resilience, such as equipment and path diversity.

For current and planned aerial fiber, wireline broadband providers generally depend on utility pole owner actions. Fiber optic cables do not need power and continue to provide signal transport even when the cable is down.

In terms of preventing poles from failing, this is an area where critical infrastructure protection is continuously evolving. Poles that are older and/or experience previous strains are weakened and more likely to fail in future events. Mitigation of such risks involve estimating pole risks based on watershed proximity, previous events, and existing drainage, with adding drainage and replacing old and weak poles as chief mitigation strategies. Such detailed information and analysis, however, is not yet available, but can be incorporated into communications infrastructure risk management as future versions of the SHMP, critical infrastructure protection, and power utility plans are updated to incorporate such analysis.

For aerial fiber, the long-term risk mitigation follows the mitigation strategies targeted at power lines. In general, changes in the severity and frequency of natural hazards have a longer time horizon and allow for gradually implement hardening efforts. When risks and outages become too frequent, power utilities will convert aerial to buried in vulnerable segments and wireline broadband providers can simply follow their lead and cadence. For communications providers risk mitigations can therefore include any of the following on a gradual implementation basis:

- Aligning with power utilities burying aerial power lines
- Adding more redundant network paths
- Increasing backup power capabilities at ISP network equipment sites and at customer end

For fixed wireless deployment, tower owners typically make sure the tower is resilient against natural hazards and load studies are conducted frequently on such vertical assets. Owners of such vertical assets therefore typically make reinforcements as needed against different types of hazards. Providers of alternative technologies such as fixed wireless will be required to show managerial and technical capability during the prequalification phase. They will be expected to understand the hazards that apply to the area in which they are applying for broadband funding.

12.4.2 Adopted risk mitigation processes

The State will ask all subgrantee applicants to have a business continuity plan which includes their natural hazard risk mitigation to broadband deployment and ask 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, the State will outline the following among the possible strategies grant participants can engage in to address natural hazard risks:

1. Favoring buried fiber compared to aerial to largely eliminate the above risks in many cases.
2. Retrofitting and hardening existing network assets that are deemed critical to BEAD expansion projects.
3. Favoring redundancy in network designs to reduce single points of failure.
4. Considering average down time and emergency response time in applicant selection.
5. Encouraging the use of backup generator power systems where applicable.

12.5 Processes to ensure that evolving risks are continuously understood, characterized, and addressed

The Mitigation Unit in the New Mexico Department of Homeland Security and Emergency Management (DHSEM) updates the State’s Hazard Mitigation Plan every five years, with the next refresh due in 2024. This cadence and schedule will represent a convenient opportunity for the above analysis to be updated, such that ongoing trends can be continually monitored and understood.

In the 2018 Plan, the DHSEM noted that disaster management has two components: recovery and reconstruction after any disaster, and a longer-term strategy to identify current and proposed mitigation projects which will reduce the potential for future losses and decrease the costs to the taxpayers.

The goal of mitigation is to save lives and to reduce injuries, property damage, and recovery times. Mitigation can reduce the enormous cost of disasters to property owners and all levels of government. In addition, mitigation can protect critical facilities, reduce exposure to liability, and minimize community disruption. Preparedness, response, and recovery measures support the concept of mitigation and may directly support identified mitigation actions.

Goals for natural hazard mitigation in New Mexico are:

1. Reduce the number of injuries due to natural hazards
2. Reduce the number of fatalities from natural hazards
3. Reduce the amount of property damage, both public and private, from natural hazards

4. Reduce the number of necessary evacuations
5. Shorten recovery time for both community functions and the natural environment after natural hazard events
6. Improve communication, collaboration, and integration among State, Tribal and local emergency management agencies
7. Increase awareness and understanding of risks and opportunities for mitigation among the citizens and elected officials of New Mexico
8. Mitigate repetitive loss and severe repetitive loss structures in the State to reduce impacts of flooding

One purpose of the 2018 Plan is to increase awareness and initiate development of long-range, interagency, multi-objective mitigation activities. To that end, the State Hazard Mitigation Planning Team (SHMPT) included representatives of the following entities, listed in alphabetical order:⁹⁹

- Bureau of Reclamation, U.S. Department of the Interior
- DHSEM facilities manager
- DHSEM State Hazard Mitigation Officer
- DHSEM, Critical Infrastructure Analyst
- DHSEM, Critical Infrastructure Coordinator
- DHSEM, Hazmat Coordinator
- DHSEM, National Incident Command System
- DHSEM, Preparedness Area Coordinator
- DHSEM, Public Information Officer
- DHSEM, State Floodplain Coordinator
- FEMA Region VI, Floodplain Mapping
- FEMA Region VI, Mitigation Planning Lead

⁹⁹ See Appendix D, Figure 4-1 of the 2018 Plan.

- FEMA Region VI, National Flood Insurance Program
- Interstate Stream Commission, Acequia Program
- Interstate Stream Commission, State Water Planner
- National Park Service
- National Weather Service
- Natural Resources Conservation Service, U.S. Department of Agriculture
- New Mexico Bureau of Geology and Mineral Resources
- New Mexico Department of Cultural Affairs, Historic Preservation Division
- New Mexico Department of Game & Fish
- New Mexico Department of Health
- New Mexico Department of Health, Bureau of Health & Emergency Management
- New Mexico Department of Public Safety
- New Mexico Emergency Management Association
- New Mexico Energy, Minerals & Natural Resources Department
- New Mexico Environment Department, Operations & Infrastructure Division
- New Mexico General Services Department, Risk Management Division Procurement Manager
- New Mexico Highlands University
- New Mexico Human Services Department
- New Mexico Indian Affairs Department
- New Mexico Museum of Natural History & Science
- New Mexico National Guard
- New Mexico Office of the State Engineer, Acequia Program Manager
- New Mexico Office of the State Engineer, Water Use Bureau Chief

- New Mexico Public Education Department
- New Mexico Public Regulation Commission
- New Mexico Regulation and Licensing Department
- New Mexico State Forestry Division
- New Mexico State University, State Climatologist
- New Mexico Tech, Department of Earth and Environmental Tech
- NM DoIT
- NMDOT
- NOAA
- Red Cross
- The Nature Conservancy
- U.S. Army Corps of Engineers
- U.S. Bureau of Reclamation, U.S. Department of the Interior
- U.S. Department of Homeland Security, Office of Infrastructure Protection, New Mexico
- U.S. Forest Service, U.S. Department of Agriculture
- U.S. Geological Survey, New Mexico Water Science Center
- University of New Mexico Earth Data Analysis Center

As New Mexico reviews the current plan, it assesses the following questions:

- Has the nature or magnitude of hazards affecting the State changed?
- Are there new hazards that have the potential to impact the State?
- Do the identified goals and actions address current and expected conditions?
- Have mitigation actions been implemented or completed?
- Has the implementation of identified mitigation actions resulted in expected outcomes?
- Are current resources adequate to implement the Plan?

- Should additional local resources be committed to address identified hazards?

Work on this assessment will be supported by the results of annual surveys collected from subject matter experts and the SHMPT.

Additionally, the State will—as part of its grant conditions—reserve the right to ask subgrantees to provide more information regarding natural hazard risk mitigation depending on the outcome of updated assessments.

13. Low-cost broadband service option (Requirement 16)

Affordable broadband service, while not the primary barrier to internet adoption in New Mexico, nevertheless presents a meaningful challenge to connectivity for many New Mexico residents. In New Mexico, low-income individuals are 14.5 percentage points less likely than higher-income individuals to have a home internet subscription¹⁰⁰—highlighting the connection between affordability and internet adoption.

The American Community Survey reports that 90.0 percent of New Mexico residents have a home internet subscription of any kind which—though close to the national rate of 90.3 percent¹⁰¹—still indicates that a significant number of New Mexico households are disconnected from the internet at home. Accordingly, among New Mexico households that do not subscribe to internet service of any kind, an estimated ten percent report that a primary reason they do not pay for an internet service at home is an inability to afford service.¹⁰²

Perhaps the most widely recognized intervention to lower the cost of internet service is the FCC’s ACP, which 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. Nevertheless, despite the benefit of the subsidy, the ACP is known to be greatly underutilized nationwide. In New Mexico, about 38 percent of eligible households have enrolled in the ACP, slightly surpassing the national rate of 36 percent.¹⁰³ However, while the national figure helps contextualize the State’s positionality relative to the country, the nation does not represent the ceiling for achievement. Furthermore, although New Mexico does not deviate strongly from national rate of ACP enrollment, there is still great opportunity for expansion in the State.

In 2022, OBAE lobbied the ISPs serving the State to participate in the ACP, and subsequently to promote the program to their subscribers.¹⁰⁴ Similarly, the Help Desk program—which is

¹⁰⁰ U.S. Census Bureau, American Community Survey Public Use Microdata, 2021 (accessed August 29, 2023).

¹⁰¹ U.S. Census Bureau, American Community Survey Public Use Microdata, 2021 (accessed August 29, 2023).

¹⁰² U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021 (accessed August 29, 2023).

¹⁰³ Enrollment counts from USAC’s ACP Enrollment and Claims Tracker, accurate as of August 28, 2023. <https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/> (accessed August 29, 2023). Estimates of eligible households based on proprietary model that uses American Community Survey Public Use Microdata to estimate number of households qualifying for ACP via several the survey’s eligibility criteria.

¹⁰⁴ “State of New Mexico Three-Year Broadband Plan,” OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>, p.88, noting that OBAE worked with ISPs to encourage supplier enrollment in the ACP and to encourage their customers to enroll.

operated by the Public Education Department—refocused its efforts to aiding eligible households with the ACP enrollment process in 2022.¹⁰⁵

Using grants from the Tribal Competitive Outreach Program (TCOP), the Pueblo of Jemez¹⁰⁶ and the Pueblo of Zuni¹⁰⁷ have initiated efforts to promote awareness and enrollment in the ACP. Likewise, the City of Albuquerque,¹⁰⁸ the New Mexico Black Leadership Council,¹⁰⁹ the El Paso Community Foundation,¹¹⁰ and Borderplex Connect¹¹¹ have conducted their own ACP outreach efforts in New Mexico with grants from the National Competitive Outreach Program (NCOP).

There are several community organizations and anchor institutions in the State that have engaged in outreach efforts to spread awareness about the ACP, encourage participation among eligible New Mexico households, and assist households in the enrollment process.¹¹²

Additionally, there are some ISPs operating in New Mexico that offer plans at low to no cost for eligible subscribers who enroll in the ACP. These ISPs include AT&T,¹¹³ Comcast,¹¹⁴ Spectrum,¹¹⁵ and Verizon.¹¹⁶

As of September 2023, New Mexico does not offer a State subsidy of a similar kind to the ACP. However, New Mexico’s legislators and OBAE are collaborating to draft a bill that would create such a subsidy program as a complement to the ACP for at-risk students.

¹⁰⁵ “State of New Mexico Three-Year Broadband Plan,” OBAE, <https://www.doit.nm.gov/wp-content/uploads/sites/4/2023/01/State-of-New-Mexico-Three-Year-Broadband-Plan-1-1-23-Version-1.0-File-011723.pdf>, p.88.

¹⁰⁶ “Consumer And Governmental Affairs Bureau Announces ACP Outreach Grant Program Target Funding,” FCC public notice, March 10, 2023, <https://docs.fcc.gov/public/attachments/DA-23-194A1.pdf>.

¹⁰⁷ “Consumer And Governmental Affairs Bureau Announces ACP Outreach Grant Program Target Funding,” FCC public notice, March 10, 2023, <https://docs.fcc.gov/public/attachments/DA-23-194A1.pdf>.

¹⁰⁸ “Consumer And Governmental Affairs Bureau Announces ACP Outreach Grant Program Target Funding,” FCC public notice, March 10, 2023, <https://docs.fcc.gov/public/attachments/DA-23-194A1.pdf>.

¹⁰⁹ “Consumer And Governmental Affairs Bureau Announces ACP Outreach Grant Program Target Funding,” FCC public notice, March 10, 2023, <https://docs.fcc.gov/public/attachments/DA-23-194A1.pdf>.

¹¹⁰ “Consumer And Governmental Affairs Bureau Announces ACP Outreach Grant Program Target Funding,” FCC public notice, March 10, 2023, <https://docs.fcc.gov/public/attachments/DA-23-194A1.pdf>.

¹¹¹ Coker, Jonny, “Local organizations work to get rural communities access to internet services,” KRWG, July 21, 2023, <https://www.krwg.org/krwg-news/2023-07-21/local-organizations-work-to-get-rural-communities-access-to-internet-services>.

¹¹² See, e.g., “N.M. Delegation Announces Over \$1.5 Million in Affordable Connectivity Outreach Grants,” Senators Ben Ray Luján, Press Release, March 16, 2023, <https://www.lujan.senate.gov/newsroom/press-releases/n-m-delegation-announces-over-1-5-million-in-affordable-connectivity-outreach-grants>.

¹¹³ “Access from AT&T – Low-Cost Internet Service,” AT&T, <https://www.att.com/internet/access/>.

¹¹⁴ “Internet Essentials,” Xfinity, <https://www.xfinity.com/learn/internet-service/internet-essentials>.

¹¹⁵ “Low Income Internet Service | Spectrum Internet Assist Program,” Spectrum, <https://www.spectrum.com/internet/spectrum-internet-assist>.

¹¹⁶ “Free Internet with the Verizon Forward Program and ACP,” Verizon, <https://www.verizon.com/home/free-verizon-internet/>.

New Mexico residents can also apply for Lifeline—a federal program which subsidizes up to \$9.25 of eligible consumers’ monthly phone or internet service bill.

The State of New Mexico is committed to providing residents with the opportunity to receive low-cost broadband service, while simultaneously recognizing that ISPs have a variety of different plans and may be unable to alter their pricing structure on a large scale. Based on previous experiences, it is highly unlikely that ISPs would implement different pricing structures for BEAD-funded areas only, while maintaining other pricing in areas that are not BEAD-funded. That said, a proposed \$50 monthly service offering aligns with many current ISP low-cost offerings (in the State of New Mexico and nationwide) and represents a sensible benchmark cost for a low-cost service option to be offered by subgrantees.

This cost is based on the following data analysis:

According to the FCC, the current unweighted median price of 100/10 Mbps broadband service in New Mexico is \$69 per month, with an overall statewide pricing range of \$30 to \$89 per month.¹¹⁷

With the Affordable Connectivity Program subsidy applied, the effective pricing for eligible low-income households purchasing services over BEAD-funded infrastructure would be \$40 if \$70 is chosen as the low-cost price point, and \$20 if a lower price point of \$50 is set as the low-cost price point.

This effective cost is considered reasonable in light of the generally accepted economic metric that broadband costs should not exceed two percent of household income. The average household income of a family of four at 200 percent of poverty level in New Mexico is roughly \$33,400, yielding a \$56 per month reasonable internet cost at two percent of household income. At 100 percent poverty levels, the income threshold is \$26,500 for a family of four, yielding a reasonable monthly internet cost of \$44.¹¹⁸

This number is supported by the data from OBOE’s 2023 scientific phone survey, in which 58 percent of respondents at or below the 150 percent of federal poverty level signaled willingness to purchase internet service priced at \$40 (i.e., a price of \$70 before application of the ACP

¹¹⁷ The FCC’s Urban Rate Survey is the leading data source for pricing and is collected for the purpose of understanding pricing in urban markets, where the benefits of competition presumably constrain costs, so as to require similar pricing by FCC funding recipients in rural areas. Unfortunately, the FCC’s Urban Rate Survey does not appear to capture service offerings consistently with speeds at 100/20 Mbps but instead mostly reports plans of 100 Mbps download speeds with 10 Mbps upload speeds. Therefore, the number reported here is based on the FCC’s data for the lowest price offered by New Mexico providers with service plans of at least 100/10 Mbps over both fiber-to-the-premises and cable broadband networks.

¹¹⁸ Data based on 2021 Census Current Population Study and 2021 Health and Human Services Poverty Guidelines.

subsidy). At or below the 200 percent of federal poverty level, fully 71 percent of households indicated willingness to purchase at that price.¹¹⁹

OBAE's intention is to aid as many New Mexico residents as possible while ensuring that the scale of the low-cost obligation—and its resulting impact on the business case for ISPs' applications to build to unserved and underserved New Mexico locations—is not too burdensome to grant applicants. The eligibility requirement for the ACP subsidy program is approximately equal to household income at or below 200 percent of the federal poverty line, suggesting a precedent for that benchmark as well as the potential to utilize the ACP National Verifier as a useful, low-cost means of verifying eligibility that does not impose additional burden on either the consumer or the ISP.

OBAE thus proposes to require all subgrantees to offer a service option that meets, at a minimum, the following criteria:

- Will be available to all households that meet the eligibility requirements of the ACP program
- Cost of \$50 per month¹²⁰ or less (\$75 per month or less on Tribal lands), exclusive of all required federal, State, or county government taxes and fees, and inclusive of any optional, non-mandatory, and/or permissive fees
- Available to households with income equal to or below 200 percent of the federal poverty line
- Allows the end user to apply the ACP 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 to which subscribers to all other broadband internet

¹¹⁹ It should be noted that expressed willingness to pay is usually an underestimation of consumer behavior as survey answers capture some bias from what consumers would like to pay rather than what they would be *willing* to pay.

¹²⁰ During the course of its outreach to ISPs, OBAE discussed this requirement. The ISPs agreed to plans that cost \$50 per month. As described elsewhere in this Proposal and in the Five-Year Action Plan, New Mexico is a large state with sparsely populated regions and a varied and challenging topography and climate. As a result, ISP costs are above the national average in most areas of the State.

access service plans offered to home subscribers by the participating subgrantee must adhere

- Allows subscribers to upgrade at no cost in the event the provider later offers a low-cost plan with higher speeds (downstream or upstream)

The State certifies that all subgrantees will be required to participate in the Affordable Connectivity Program¹²¹ or any successor program.

¹²¹ 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), <https://docs.fcc.gov/public/attachments/FCC-22-2A1.pdf>.

14. Middle-class affordability plans

This section describes OBAE’s middle-class affordability plan designed to ensure that a BEAD-funded network’s service area provides high-quality broadband service to all middle-class households at reasonable prices.

OBAE is very cognizant of the barriers that New Mexico residents face to connectivity, and, as such, the State has committed itself to addressing these concerns in manner that aids as many residents as possible. When evaluating how to ensure broadband access in the State of New Mexico, affordability presents a meaningful barrier to widespread adoption of service amongst residents of various socioeconomic backgrounds. Given the State’s dedication to addressing barriers to connectivity, OBAE recognizes that affordability plans and policies that support middle-class households’ access to reliable broadband are critical to ensure all New Mexico residents are served. About 48.7 percent of New Mexico households belong to the middle-class,¹²² and middle-income households are 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.¹²³ Middle-income households are a significant demographic in New Mexico and as such, are a critical factor to be considered in support of the BEAD Program’s goal to make high-quality broadband services available to all residents.

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. According to the Current U.S. Population Survey, conducted in the 2021 Census, approximately 3 percent of New Mexico residents that do not subscribe to internet service at home reported that the primary reason is that internet service is “not worth the cost.”¹²⁴ This figure, while not high, highlights the still notable number of New Mexico residents that are held back by financial concerns beyond simply being able to afford the service at face value. Additionally, 66 percent reported the primary reason they do not subscribe to the internet at home is “don’t need or not interested.”¹²⁵ This was the most frequently reported response and could be indicative of greater concerns regarding internet affordability in the State. Perhaps, if internet service was less expensive, a broader proportion of New Mexicans would recognize the value of the service. As such, the broader

¹²² Madison Huff, “This map shows how big the middle class is in every state,” Business Insider, August 17, 2022. <https://www.businessinsider.com/map-how-big-the-middle-class-is-in-every-state-2022-7>.

¹²³ Jesse Bennett, 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/>.

¹²⁴ U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021 (accessed August 29, 2023).

¹²⁵ U.S. Census Bureau, Current Population Survey Public Use Microdata, November 2021 (accessed August 29, 2023).

notion of affordability fundamentally demonstrates the manner in which middle-income households are frequently disincentivized from participating in the digital economy.

Given recent FCC policy statements from chair Jessica Rosenworcel that the FCC may reclassify broadband as an essential service, such as water or electricity, the importance of broadband affordability has reemerged.¹²⁶ However, as broadband is not currently included in the HUD’s definition of “utility services,” the financial burden of broadband cost is frequently not included in analyses of affordable housing in the U.S.¹²⁷ In its 2016 Universal Service Monitoring Report, the FCC provided a measure for affordability: broadband and voice service expenditures less than 2 percent of consumers’ disposable income. For middle-income households specifically, experts recommend that broadband costs should be no more than 2 to 5 percent of household income.¹²⁸

As noted by the National Academy of Public Administration,¹²⁹ the United States Conference of Mayors,¹³⁰ and the American Water Works Association,¹³¹ however, considering affordability as a simple percentage of income can disregard differential burdens placed on middle-class and low-income households. In measuring affordability, OBAE will work to monitor the impact of broadband costs on communities at the highest risk of disconnection, especially given that covered groups in the State are 9.6 percentage points less likely than non-covered groups to subscribe to internet service (of any kind).¹³²

A statistically valid survey of residents conducted for the State’s Digital Equity Plan shows the range of prices subscribers in New Mexico at various income levels currently pay for their internet plan (Figure 14), and the amount they are willing to pay for high-speed, reliable service (Figure 15).

¹²⁶ “Is broadband an essential utility, like water or electricity? New net neutrality effort makes the case,” The Associated Press, <https://apnews.com/article/fcc-net-neutrality-plans-8c2210cc6ad225b1b3e866a375830217>.

¹²⁷ “Public Housing Occupancy Guidebook,” https://www.hud.gov/sites/dfiles/PIH/documents/PHOG_Utilities_FINAL.pdf (accessed September 21, 2023).

¹²⁸ “The affordability of ICT services 2022,” https://www.itu.int/en/ITU-D/Statistics/Documents/publications/prices2022/ITU_Price_Brief_2022.pdf (accessed September 21, 2023).

¹²⁹ “Developing a New Framework for Community Affordability of Clean Water Services,” National Academy of Public Administration, October 2017,

https://napawash.org/uploads/Academy_Studies/NAPA_EPA_FINAL_REPORT_110117.pdf.

¹³⁰ “Affordability Assessment Tool for Federal Water Mandates,” American Water Works Association, 2013, <https://www.awwa.org/Portals/0/AWWA/ETS/Resources/AffordabilityAssessmentTool.pdf>.

¹³¹ “Improving the Evaluation of Household-Level Affordability in SDWA Rulemaking: New Approaches,” American Water Works Association, April 2021, <https://www.awwa.org/Portals/0/AWWA/Government/ImprovingtheEvaluationofHouseholdLevelAffordabilityinSDWARulemakingNewApproaches.pdf>.

¹³² U.S. Census Bureau, American Community Survey Public Use Microdata, 2021 (accessed August 29, 2023).

Figure 14: Monthly cost of home internet service by household income

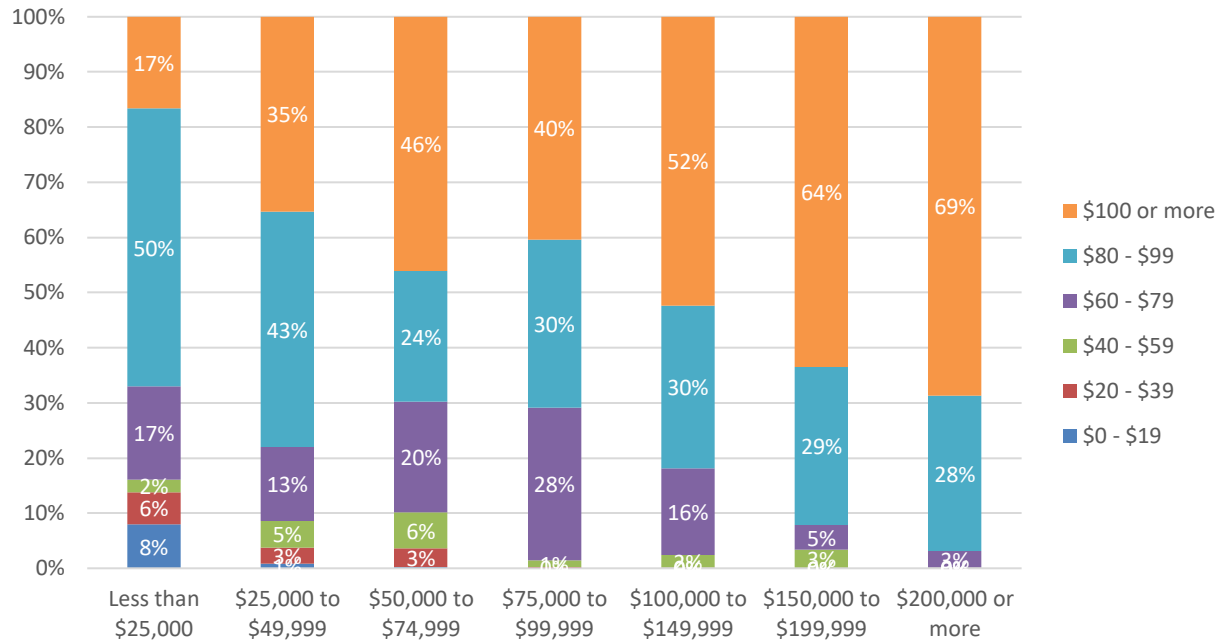
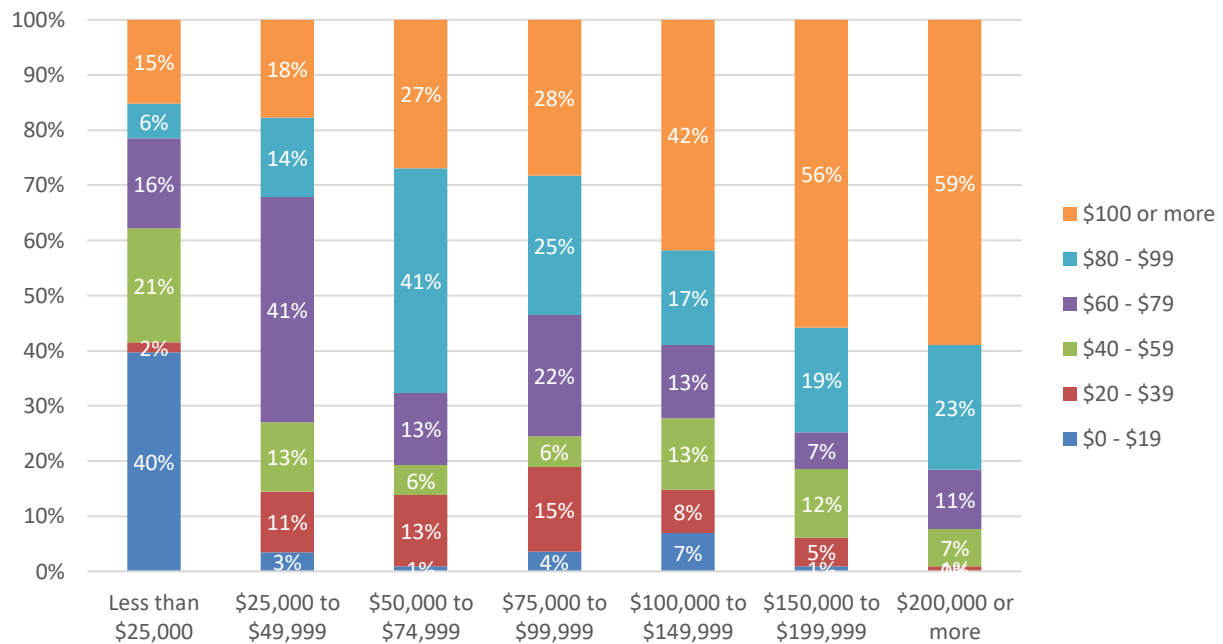


Figure 15: Amount willing to pay for high-speed, reliable home internet service by household income



OBAE will also monitor the affordability of available service options within the State and encourage providers to offer a range of options that support broadband adoption by residents regardless of income level and reduce the burden on lower-income subscribers.

As established, affordability strongly influences broadband adoption. To ensure that middle-income households have access to broadband, the lack of affordable broadband options must be addressed. OBAE is considering several policy options to ensure that broadband is accessible by all New Mexico residents, while simultaneously remaining cognizant of the delicate position of ISPs. As such, OBAE's addressing of middle-class affordability aims to aid as many households as possible, while also aiming to prevent potential subgrantees from choosing not to participate in BEAD, which would lead to higher cost awards and fewer residents getting access to Priority Broadband (fiber). Furthermore, OBAE's policy-oriented approach intends to address the barrier of affordability that plagues many households with incomes that just surpass ACP eligibility.

Accordingly, the State of New Mexico plans to manage middle-class affordability within the context of the BEAD program by addressing the following areas of risk:

- **Small, local providers propose low requested BEAD support but set high subscription costs:** OBAE will encourage ISPs participating in the State BEAD grant program to offer areas they serve with grant funding their best price for analogous products they offer in other areas, in alignment with the gigabit best offered pricing requirement in the BEAD program rules. (ISPs should include current pricing through the prequalification process, and a rigorous financial proficiency test will be built into the letter of credit and prequalification process.)
- **Providers shift drop and installation costs to the consumer to recover capital costs:** Grant participation rules will make clear that drops and network equipment are eligible BEAD costs and should be built into grant proposals to avoid inflated subscriber prices. OBAE expects this risk to be somewhat mitigated by expanding competition in rural areas from 5G home internet and LEO satellite options.
- **Providers refuse to provide service to expensive locations:** OBAE will monitor and ensure that awardees make good on their BEAD service commitments, including not assessing additional fees beyond standard installation fees.
- **Differential pricing between urban and new project areas:** The gigabit best pricing policy mandated in the scoring matrix sets requirements around geographic non-discrimination.

As previously established, the State of New Mexico is committed to establishing policies that would ultimately lead to more widespread affordability among middle-income residents. This holistic commitment to expanding the adoption of broadband throughout the State necessitates the accommodation and partnership of subgrantees. In doing so, OBAE increases the likelihood of ISP participation and, in effect, will provide middle-income New Mexico residents a genuine opportunity to be fully engaged in the digital world.

15. Use of funding (Requirement 17)

15.1 Planned use of funds requested

New Mexico requests that NTIA obligate 100 percent of the funds remaining of its BEAD allocation making at least 2 percent available immediate for programmatic work. New Mexico, working closely with its partners from Tribal and local governments, industry and community organizations, and other stakeholders, will use the funding to begin closing the digital divide as quickly as possible. With 100 percent of the funding obligated, these partners will have the assurance they need to invest appropriate time and resources to participate fully in the State’s grant processes. These assurances will allow the State and its partners to move to broadband deployment more efficiently.

NTIA provides that the State may budget its BEAD allocation in four expense categories: Deployment, Non-Deployment, Administrative, and Programmatic. Accordingly, New Mexico requests 100 percent of its BEAD allocations as follows:

Table 17: BEAD allocation proportions for expense categories

Category	Details	Budget percent
Deployment Costs	Subgrantee costs for deployment	96%
Programmatic Expenses	BEAD Planning, Challenge Process, IT Systems to run Challenge and Grant Applications, Subgrantee Selection Process Development and Management,	2%
Administrative Expenses	Staffing, travel, day-to-day monitoring and oversight of subgrantees, training staff, subgrantees and public, ongoing stakeholder communications	2%
Non-Deployment Expenses	Workforce program, digital equity program supplementation, training and capacity building	0%

Given that New Mexico anticipates its BEAD allocation will not cover sufficient broadband deployment expenses to reach to all unserved, underserved and CAIs, it will not initially request funds for non-deployment activities. However, if the State has remaining funds after running a competitive grant process, it will amend its budget as part of its final proposal.

15.2 Amount of Initial Proposal funding request

New Mexico requests 100 percent of funds remaining of its BEAD allocation of \$675,372,311.86.

15.3 Certification

OBAE hereby certifies that:

- OBAE will adhere to BEAD Program requirements regarding Initial Proposal funds usage

16. Eligible Entity regulatory approach (Requirement 18)

New Mexico does not restrict public sector providers from providing broadband services and will not limit such providers' participation in the subgrant process or impose specific requirements and limitations on public sector entities. Therefore, a waiver of State law is not applicable.

17. Certification of compliance with BEAD requirements (Requirement 19)

17.1 Certification of compliance

New Mexico certifies that it will:

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

New Mexico would like to avail subgrantee of the 2 C.F.R. Part 200 exceptions and adjustments NTIA applies in the BEAD program. Should any revisions to this Initial Proposal be needed to accomplish this, New Mexico would like an opportunity to make those revisions.

17.2 Subgrantee accountability procedures

17.2.1 Overview

In creating the BEAD program through the Infrastructure Investment and Jobs Act (IIJA), Congress made a once in a lifetime investment in connectivity and digital equity/opportunity. The State is committed to ensuring that everyone has access to broadband and the ability to use it meaningfully. To that end, New Mexico has also issued other federal and added State funding to support broadband projects. OBAE, in executing the BEAD program, will work diligently to ensure the success of all its recipients' projects.

OBAE takes its role as a steward of federal and State funding seriously. It will seek to balance its oversight responsibilities with its desire to reduce regulatory burdens for ISPs in order for New Mexicans to see the benefit of this broadband investment. To that end, OBAE 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. OBAE will actively protect this investment for the benefit of New Mexicans, at a minimum, using the following criteria: risk-based oversight and engagement, distribution of funding on a reimbursement basis, appropriate provisions to claw back funds from subgrantees if needed, timely reporting requirements and robust subgrantee monitoring. OBAE plans to align its processes, as much as possible, with its existing programmatic monitoring.

17.2.2 Risk-based monitoring

The State will establish a manageable 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, OBAE will review the organizational, financial, and technical strengths of each subgrantee. Then, it will assign a risk category and appropriate monitoring and technical assistance resources. OBAE 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.

17.2.3 Fraud, waste, and abuse

The State will utilize a mechanism to report fraud, waste, and abuse operated by the Office of the New Mexico Attorney General.¹³³ The State will also utilize federal reporting mechanisms such as the U.S. Department of Commerce’s Inspector General hotline.¹³⁴

17.2.4 Distribution of funds on a reimbursement basis

Although most federal grants allow grantees and subgrantees to obtain an advanced payment to cover grant-related expenses, OBAE will indicate clearly in its guidance and through its award documentation that its BEAD subgrants will be issued on a reimbursement-only basis. OBAE will require the following from subgrantees before dispersing BEAD funds:

- Reaching grant milestones
 - OBAE will require the timely reporting of the completion of grant milestones, according to the plan outlined in Section 5 (Requirement 8).
- Providing compliant documentation
 - OBAE 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. OBAE 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.

17.2.5 Clawback provisions

OBAE will also work with its legal advisors to ensure its grant awards contain clawback provisions. In other words, if the subgrantee fails to meet its obligations under the award, including those provided in the application, OBAE can 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, OBAE considers non-performance to include effective, timely broadband deployment, continuing to offer low-cost service options for the useful life of the assets, meeting reporting deadlines, providing accurate deployment data, and fulfilling all additional BEAD requirements such as broadband speeds.

¹³³ “Special Investigations,” New Mexico Attorney General, <https://www.nmag.gov/about-the-office/criminal-affairs/special-investigations/>.

¹³⁴ “Report Fraud, Waste, Abuse, & Whistleblower Reprisal,” Office of the Inspector General, U.S. Department of Commerce, <https://www.oig.doc.gov/Pages/Hotline.aspx>.

17.2.6 Timely reporting requirements

OBAE will require subgrantees to report on their awards on a timely basis to identify and mitigate risks to ensure both the State’s and subgrantees’ compliance with statutory and BEAD requirements. These reports include:

- Regular check-ins with OBAE to discuss the project progress
- Periodic reporting on project progress and fiscal performance
- Responses to intermittent requests from OBAE about the project
- On-site inspections

17.2.7 Robust subgrantee monitoring

OBAE plans to adopt monitoring techniques that produce data about subgrantee performance and progress to assess individual and portfolio risks and inform the State’s decisions about targeting technical assistance, corrective action or enforcement actions as needed. Such activities include:

- Desk reviews – periodic review of subgrantees’ progress and financial reports designed to ensure that OBAE’s own reports to NTIA contain timely information.
- Field engineering reviews or audits – engineering teams evaluate constructed segments and full projects against as-built reporting and application requirements.
- Site visits – periodic visits using a standardized agenda to capture first-hand observations of recipient performance along various dimensions, including subgrantee capacity, performance validation, safety practices, and employment practices.

In reviewing its portfolio, OBAE plans to establish and update monitoring levels for its projects based on factors including its performance reporting, desk reviews, and OBAE interactions.

17.3 Certification of nondiscrimination and civil rights

New Mexico 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, OBAE 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)

17.4 Certification of cybersecurity and supply chain risk management

The State certifies that it will ensure subgrantee compliance 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 OBAE prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to OBAE within 30 days.

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

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

OBAE 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.

New Mexico's computer security operations are led by the Office of Cybersecurity which is administratively attached New Mexico Department of Information Technology.¹³⁵ Its mission is to promote a safe and secure enterprise computing environment and protect the privacy and security of individual information as well as of individuals using the State's information technology systems through the implementation of industry-accepted security policies, standards, and procedures. It operates a hotline at 505-827-0000. The Cybersecurity Office can support the State's efforts to ensure subgrantee compliance with cybersecurity requirements.

Governor Michelle Lujan Grisham issued Executive Order 2022-141¹³⁶ on September 23, 2022, establishing the Cybersecurity Planning Committee to assist State, local, and territorial governments with managing and reducing systemic cyber risk and apply for federal funds.

¹³⁵ "Cybersecurity," New Mexico Department of Information Technology, <https://www.doit.nm.gov/programs/cybersecurity/>.

¹³⁶ "Executive Order 2022-141, Establishing the Cyber Security Planning Committee," Governor of New Mexico, <https://www.governor.state.nm.us/wp-content/uploads/2022/09/Executive-Order-2022-141.pdf>.

Appendix A: Local coordination tracker tool

The local coordination tracker will be included in this appendix in the version of this Initial Proposal that is submitted to NTIA. It will follow NTIA's model. See Section 4 for details.

Appendix B: Contributors on workforce readiness

The following is a non-exhaustive list of entities from which workforce input was welcomed. See Workforce readiness (Requirement 12) for more details.

- 10g LLC
- 365 Wireless, LLC
- ABQIX
- Accenture
- ACN Communications Services, Inc.
- ADACEN
- ARIN
- AT&T
- ATC Outdoor DAS, LLC
- About Listening Associates
- Access Point, Inc.
- Action INTELEX
- Adams Consulting
- Affiniti, LLC
- Affordable Voice Communications
- Agavue, LLC /Vigil Group/ Cibola Wireless
- Albuquerque Opportunity Center
- All-Inclusive InfoSec
- Alliance for Navajo Broadband
- America Net, LLC
- American Vacuum Society New Mexico Chapter Executive Committee
- AmigoNet
- Ardham Technologies
- Assurance Wireless
- Aurora Networks
- Azulstar, Inc.
- BCN Telecom, Inc.
- BT Communications Sales, LLC
- Baca Valley (Sierra Communications Inc.)
- Bandwidth.com
- Barrett Foundation, Inc.
- Better IT Services
- Big River Telephone Company, LLC

- Birch Communications (Globalinx)
- Black Mesa Wireless
- Blackrock Networks, LLC
- Blancett Ranches
- Boost Mobile
- Border Servant Corps
- BorderPlex Economic Alliance
- Brainstorm Internet
- Broadband Dynamics, LLC.
- Broadcore, Inc.
- Broadview Networks, Inc. (Part of Windstream)
- Broadvox-CLEC, LLC
- Broadwing Communications, LLC
- Budget Prepay Inc.
- BullsEye Telecom, Inc.
- Cable One Inc dba Sparklight
- Carlsbad Department of Development (EDD)
- Carrizozo Works, Inc. (EDD)
- Cebridge Telecom NM, LLC dba Suddenlink
- Cedar Networks
- Cellco Partnership
- Cellular One
- Central New Mexico Electric
- Central Valley Electric
- CenturyLink Communications, LLC
- Charter (Spectrum)
- Children, Youth, & Families Department
- Choice Wireless - Navajo Tribal Utilities Wireless
- Cibola Communities Economic Development Foundation
- Cibola Internet Services
- Cincinnati Bell Any Distance, Inc.
- Citizens Fiber
- City of Albuquerque Economic Development Department (EDD)
- City of Albuquerque Human Resources Department
- City of Farmington
- City of Santa Fe Economic Development (EDD)
- CityLink Fiber

- CityTech Strategy Group
- Clovis Economic Development
- Cnet Internet
- Cogent Communications
- Colorado Beach
- Colores United
- Columbus Electric
- Comcast
- Commnet Wireless, LLC
- Common Point LLC
- Community Action Agency of Southern New Mexico
- Community Foundation of Southern New Mexico
- Community Learning Network
- Community Tech Solutions
- Compliance Solutions
- Computer West
- Comtech 21, LLC.
- Connect New Mexico Council
- Connect New Mexico Council - DoIT
- Connect New Mexico Council - New Mexico Department of Cultural Affairs
- Connect New Mexico Council - New Mexico Department of Economic Development
- Connect New Mexico Council - New Mexico Department of Transportation
- Connect New Mexico Council - New Mexico Mortgage Finance Authority
- Connected Nation
- Conterra Ultra Broadband, LLC
- Conversant Technology, Inc.
- Convivial Design, Inc.
- Copper Valley Telephone, Inc.
- Crexendo Business Solutions, Inc.
- Cricket Wireless
- Cro Consulting
- Crown Castle NG West, LLC
- Cruces Creatives
- Cultural Affairs Department
- Cybermesa
- Cyberwinds LLC
- DNCU

- DOI-BIA
- Del Norte Credit Union
- Delcom, Inc.
- Dell Telephone Cooperative, Inc.
- DesertGate Internet
- Destination Strategies LLC
- Dona Ana Village Association
- Doña Ana Historical Society
- EarthLink Business, LLC
- East Downtown Neighborhood Association (Albuquerque)
- Easton telecommunications Services
- El Camino Real Neighborhood Association (Santa Fe)
- El Raton Media Works
- Empowerment Congress
- Entelegent Solutions, Inc.
- Environment Department
- Epic Touch Co.
- Essential Community Communications Infrastructure, Inc.
- Estancia Valley Economic Development Association (EDD)
- ExteNet Systems, Inc.
- FCC Rep
- FDIC
- Fasttrack Communications, Inc.
- Federal Bank of Dallas, El Paso Office
- Federal Reserve Bank
- Festina Networks (WiMax)
- Fidelity Communications
- First Choice Technology, Inc.
- Flower Hill Institute
- For2Fi, Inc.
- Forethought.net
- Four Corners Economic Development Inc. (EDD)
- France Telecom Corporate Solutions, LLC
- Frontier Communications Corporation
- FullCtl
- GC Pivotal, LLC d/b/a Global Capacity
- GCI

- GEER II Broadband Pilot Project
- General Services Department
- Geoflight
- Global Connection, Inc. of America
- Global Crossing Telecommunications Inc.
- Globalcom, Inc.
- Gonzales Group LLC
- Granite Telecommunications, LLC
- Grant County
- Greater Albuquerque Association of Realtors
- Greater Artesia Economic Development Corporation (EDD)
- Greater Gallup Economic Development Corporation
- Greater Raton Economic Development Corporation (EDD)
- Greater Tucumcari Economic Development Corporation (EDD)
- Greenfly Networks, Inc.
- Grey LLC
- HSD
- Heading Home
- High Water Mark, LLC
- Higher Speed Internet
- HopeWorks
- Hosanna
- Hughes Net (Hughes Network Systems - 'HNS License
- Huntleigh Telecommunications Group, Inc.
- IAD
- IDT America, Corp.
- INX
- Impact Telecom, LLC
- Incite Consultancy
- Insta Copy Printer
- Intel
- Internet Society
- Ionex Communications North, Inc.
- JKL Associates, Inc.
- Jade
- Jemez Mountains Electric Cooperative
- Jemez Pueblo Tribal Network

- Joy Junction Shelter
- K'awaika Hanu Internet
- Kelly Cable of New Mexico
- Key Communications Inc.
- Kit Carson Telecom/Electric
- Kosh Solutions
- LDC Telecommunications, Inc.
- La Canada Wireless Association
- La Casa, Inc.
- La Jicarita/ Northern NM Telecom
- La Mesa Lions Club
- La Tierra Communications, Inc.
- La Cañada Wireless
- Las Cruces Rotary
- Leaco Rural Telephone Cooperative
- League of Women Voters
- Leap Wireless International, Inc.
- Legacy Long Distance International
- Level3 Communications (Previously TW Telecom)
- Lobo Internet Services, LTD
- Lokket
- Long Distance Consolidation
- Los Alamos Commerce and Development Corporation
- Los Alamos Community Network
- Los Alamos County
- Los Alamos National Laboratory
- Los Alamos Network
- Lovington Economic Development Corporation (EDD)
- Lumen
- MATI/NTTA
- MCImetro Access Transmission Services, LLC
- MFG Services, Inc.
- Mamacitas Cibernéticas
- Matrix Telcom Inc.
- McGraw Communications, Inc.
- McLeodUSA, Telecommunications Services, Inc.
- Megahertz Computer Consulting

- Megapath (Covad)
- Mesa Verde Enterprises, Inc
- Mescalero Apache Telecom, Inc.
- Mescalero Apache Tribe
- Mesilla Valley Economic Development Alliance (MVEDA)
- Metropolitan Telecommunications of New Mexico (MetTel)
- Middle Rio Grande Economic Development Association (MRGDA)
- Mighty Moms
- Mitel NetSolutions, Inc.
- Mobilitie, LLC
- NDIA
- NIC New Mexico
- NMECG & NMFN
- NMSURF, Inc
- NTCA–The Rural Broadband Association
- NTIA
- NTS Communications, Inc.
- NWNMCOG
- National Access Long Distance
- National Digital Inclusion Alliance
- National Federation of Independent Business
- National Telecommunications and Information Administration
- Nationwide Long Distance Service
- Navajo Communications Co. Inc
- Navajo Frontier Communications
- Navajo Nation Broadband Office
- Navajo Nation Veterans Advisory Council
- Neighbor
- Neutral Tandem, Inc. d/b/a Neutral Tandem-New Mexico
- New Day Youth & Family Services
- New Horizons Communications Corp.
- New Mexico Association of Counties
- New Mexico Business Coalition
- New Mexico Connect Council
- New Mexico Counties
- New Mexico Department of Human Services
- New Mexico Department of Information Technology

- New Mexico Department of Innovation and Technology
- New Mexico Department of Transportation
- New Mexico Department of Veterans Services
- New Mexico Economic Development Department (NMEDD)
- New Mexico Exchange Carrier Group (NMECG)
- New Mexico Foundation
- New Mexico Human Services Department
- New Mexico Indian Affairs Department
- New Mexico MainStreet
- New Mexico Minority Business Development Agency
- New Mexico Office of African American Affairs
- New Mexico Office of Broadband Access and Expansion
- New Mexico Rural Electric Cooperative
- New Mexico TechNet, Inc.
- New Mexico Technology Council
- New Mexico Trade Alliance
- New Mexico Workforce Connection
- New Voices Otero
- NewCloud Networks
- Newpath Networks, LLC
- NextGen Communications, Inc.
- Nextlink Wireless, Inc.
- Ngage New Mexico
- North Campus Neighborhood Association (Albuquerque)
- North Central NM Economic Development District
- North Valley Association (Albuquerque)
- Northern Río Arriba Electric
- Nosva Limited Partnership
- OSI Hardware
- Office of Broadband Access and Expansion
- Office of the Lt Governor
- Old Santa Fe Association (Santa Fe)
- Onvoy, LLC; Broadvox-CLEC, LLC
- Opex Communications
- Optipulse
- Orbitcom, Inc.
- Organ Mesa Ranch Homeowners Association (Las Cruces)

- Oso Grande Technologies Inc. / Oso Grande Communications
- Otero County Economic Development Council, Inc. (EDD)
- PSI Safe Harbor
- PVT Networks, Inc.
- Paetec Communications, Inc.
- Panhandle Telephone Cooperative, INC
- Penasco Valley Telephone Cooperative
- Plateau Telecommunications, INC
- Plaza Blanca
- Pojoaque Pueblo Economic Development (EDD)
- Poston & Associates LLC
- Preferred Long Distance Inc.
- Prime Time Ventures, LLC
- Pueblo of Isleta
- Pueblo of Jemez
- Pueblo of Laguna
- Pueblo of Pojoaque
- Pueblo of Sandia
- Pueblo of Santa Ana
- Pueblo of Tesuque
- Q Link Wireless
- QuantumShift Communications, Inc. f/k/a MVX.COM Co
- Qwest Corporation (obtained by CenturyLink)
- REDI Net
- RESPEC
- RLR RESOURCES
- RS21
- Ready Wireless
- Reduced Rate Long Distance
- Regional Development Corporation (EDD)
- Renewable Energy Industries Association of New Mexico
- Resound Networks
- Rio Grande Unwired
- Riolink, LTD
- Roosevelt County Electric
- Roosevelt County RTC, Inc./Yucca
- Roswell / Chaves County Economic Development Corporation (EDD)

- Rt66 Internet
- Ruidoso Rotary Club
- Ruidoso/Lincoln County Association of Realtors
- Rural Innovation Strategies, Inc.
- S.A.F.E. House
- SCS Connect (Southwest Communications Services)
- SW DinehNet
- Sacred Wind Communications Inc.
- San Isabel Telecom
- Sandoval Economic Alliance (EDD)
- Sano Health
- Santa Clara Pueblo
- Santa Fe Business Incubator
- Santa Fe County
- Saranam LLC
- Selectel Wireless
- SentivaNet
- Sentry Management, Inc.
- Shot Wireless
- Silv Communications, Inc.
- Skycasters
- Souder, Miller & Associates
- South Valley Economic Development Center
- Southcentral Council of Governments
- Southeastern NM Economic Development District (SNMEDD)
- Southwest Cyberport (SWCP)
- Southwest New Mexico Council of Governments
- Southwest Region Economic Development Association
- Southwestern Wireless
- SpaceX
- Spacenet/SageNet
- Spectrotel, Inc.
- Spinn.Net ISP
- Springer Electric
- Sprint Nextel Corporation
- StandUp Wireless
- State Personnel Office

- SteelBridge
- Straight Shooting Tech.
- Straight Shot Wireless
- Suddenlink Communications
- T-Mobile
- TCI Internet
- TDNOG
- TDS/Baja Broadband
- TW Telecom
- Tanger Telecommunications
- Tanoan East Homeowners Association (Albuquerque)
- TaosNet, LLC
- Taylor Ranch Neighborhood Association (Albuquerque)
- Telcom North America, Inc.
- Telespan Communications, LLC
- Terastream Broadband
- Tewa Communications
- The Bridge of Southern NM
- The Jones Firm
- The Permian Strategic Partnership
- The Rock at Noonday
- Thompson Consulting
- Tiis Tsoh Sikaad/Burnham Veterans Organization
- Tilver Telecommunications, LLC
- Time Warner Cable LLC
- Tortugas Pueblo
- Total Call International
- TracFone Wireless
- Transtelco, Inc.
- Transworld Network Corp.
- Tri State Generation and Transmission Association,
- TriNet Communications
- Trilogy/Smith Bagley DBA Cellular One
- TruConnect
- TruNet Internet Services LLC
- Tularosa Basin Telephone Company
- Tularosa Communications

- US Cable Corporation/US Cable of Coastal Texas LP
- UVNV
- Unite Private Networks, Inc.
- United Way of Southwest NM
- Unity Telecom, LLC
- VRECC
- Valley Telephone Group/Valley Telecom
- Valor Net
- Valutel Communications, Inc.
- Velocity The Greatest Phone Company Ever, Inc
- Verizon
- Vero Networks
- Veterans groups in Doña Ana County and CLC
- ViaSat/Wildblue
- Village of Ruidoso
- Village of Tularosa
- Virtual Los Alamos
- Voicecome Telecom, LLC
- WNM Communications
- WNMU - Small Business Development Center
- WTA
- Walker Ranch
- Westal, Inc.
- Western New Mexico Telephone Inc.
- Western Resource Advocates
- Westwind Computer Pr...
- Wi-Power
- WiMacTel, Inc.
- WildBlue Communications, Inc. (Now: ViaSat Inc.)
- Windstream
- Wired Nation, Inc.
- Women's Intercultural Center
- Working Assets Funding Services
- Ymax Communications, Corp.
- Yucca Telecommunications Systems
- Zayo Group

Appendix C: Organized sequence of subgrantee selection process

The following table organizes the documents required from OBAE and from the subgrantee at different points in the subgrantee selection process (see Deployment subgrantee selection (Requirement 8)). The table is an organized visualization of the process, not a full accounting of the details of each required document.

Table 18: Summary of subgrantee selection process documents and milestones

Phase	OBAE provides	Subgrantee provides	
		Brief description	Section of this Initial Proposal
Preparatory	Prequalification materials (Application, Program Guide, FAQ documents, model letter of credit, list of required licenses and certifications)		
	Template for detailing other public funding		
	Website information (also directing to third-party resources)		
	Online application workshop and workshop materials		
	Continual updates to FAQ document as questions are received and answered		
Prequalification submission window opens			
Prequalification	Dedicated email address for questions and technical assistance	Audited unqualified financial statements from the last three years	5.3.1 5.12.3
	Continual updates to FAQ document as questions are received and answered	Statement signed by executive of company certifying financial qualifications	5.3.1 5.12.1
	Updates and reminders on milestones, deadlines, or technical resources as they come up	Resumes of management staff, CTO, contractor oversight team, and other key personnel; and description of their expected roles in a BEAD-funded project	5.3.1 5.12.5.1

Phase	OBAE provides	Subgrantee provides	
		Brief description	Section of this Initial Proposal
		Certifications and licenses of the organization, the officer or director, management staff, contractor oversight team, and key technical personnel; and certification of processes and resources to employ continued skilled, credentialed workforce	5.3.1 5.12.6.1 5.12.6.2
		Description of planned contractors and consultants, and certification that any future contracted resources will have the relevant and necessary skills	5.3.1 5.12.5.3
		Organizational chart and narrative description of Applicant’s processes and structure	5.3.1 5.12.5.2
		Narrative description of the entity’s experience, resources, and readiness in managing and carrying out this broadband project, referencing key personnel	5.12.5.3 5.12.6.3
		Certification of history of providing telecommunications or electric service	5.3.1 5.12.8.1
		Certification of FCC Form 477s and Broadband DATA Act submissions OR Qualified operating or financial reports and certification that submission is accurate	5.3.1 5.12.8.2 5.12.8.3
		Legal opinion from legal counsel attesting to preparation for compliance to all applicable laws for BEAD-funded projects	5.3.1 5.12.7

Phase	OBAE provides	Subgrantee provides	
		Brief description	Section of this Initial Proposal
		Narrative description of processes in place to conduct funding activities in compliance with federal and State law, including procurement practices	5.12.7
		Ownership information, including ownership structure, corporate entity type, and other information, referencing and corresponding to other information provided	5.3.1 5.12.9
		Certification of history of compliance and of intention to comply with environmental and historic preservation requirements and BABA	5.6
		Certifications: Of cybersecurity risk management plan; that the plan reflects NIST framework and EO 14028; and that the plan will be updated periodically; and that the plan will be submitted to OBAE	5.3.1
		Certifications: Of supply chain risk management plan; that supply chain plan reflects NISTIR 8276 and other guidance including NIST 800-161 and specifying the controls being implemented; and that the plan will be updated periodically; and that the plan will be submitted to OBAE	5.3.1
		List of present or planned applications to federal or State broadband funding, and of every broadband deployment project the Applicant is undertaking or	5.3.1 5.12.10

Phase	OBAE provides	Subgrantee provides	
		Brief description	Section of this Initial Proposal
		will undertake, with details on each project, using OBAE template	
		Materials on Fair Labor Practices and compliance (including certification of compliance with labor and employment laws; yearly recertification of labor and employment practices; discussions of workforce plans, commitments, and development; compliance with workplace safety and processes to monitor and support future compliance)	5.3.1 5.12.7 8.1
		Documentation of communications with and outreach to workers and worker representative labor organizations	5.12.7
		Certification of worker-led health and safety committees	5.3.1 5.12.7
		Certifications: of awareness of letter of credit obligations; of qualifications and resources to obtain letter of commitment and letter of credit from financial institution for no less than 25% of award	5.12.2
Prequalification submission window closes			
	“Reasonable” curing		
	Announcement of prequalification determinations		
NTIA approval of Initial Proposal Volume II			
Completion of Challenge Process			
NTIA Challenge Process Validation			

Phase	OBAE provides	Subgrantee provides	
		Brief description	Section of this Initial Proposal
Scoring	Grant and application materials (Application, Program Guide, FAQ documents, sample engineer certification)		
	Template for budget narrative, proposed budget, and business case analysis		
	Technical Specifications Template, Project Timeline Template		
	Website information (also directing to third-party resources)		
	Online application workshop and workshop materials		
Scoring Phase submission window opens			
	Dedicated email address for questions and technical assistance	Detailed description of specific proposed project, including network design, descriptions of location and community, descriptions of technical specifications, timelines and milestones, and documentation of costs	5.12.6.5
	Continual updates to FAQ document as questions are received and answered	Budget narrative and proposed budget using OBAE templates, specifying expenses, team responsible for each expense, and relation to project objective	5.12.4
		Business case analysis using OBAE template, involving take rates, churn, revenue, cash flow, expenditures	5.12.4

Phase	OBAE provides	Subgrantee provides	
		Brief description	Section of this Initial Proposal
		Descriptions of managerial capability connected to unique needs of specific proposed project	5.12.5
		List of job categories, titles, and descriptions to complete the specific project; certifications or licenses necessary for the specific project; demonstration of completion of requirements to be qualified for the project	5.12.6.4
		Documentation of support and approval from Tribal authorities, if proposed project will take place on any Tribal lands	5.9
		Certification of the project by independent professional engineer	5.12.6.6
		Project-specific certification by Officer or Director: that it has financial resources to complete the project with reimbursement model; that it has financial resources to provide pledged matching funding; that it has financial resources to support all costs of the project, even if it exceeds the grant award and matching funds	5.12.1
		Letter of commitment from qualified financial institution describing the institution, stating that they stand ready to issue a letter of credit for the proposed project and specified amount, and stating that it has reviewed	5.12.2

Phase	OBAE provides	Subgrantee provides	
		Brief description	Section of this Initial Proposal
		the model letter and is prepared to comply with terms	
Scoring Phase submission window closes			
	Scoring, according to guidelines in 5.3.2 and 5.3.3		
	Curing, as necessary		
Negotiation	Counteroffers to negotiate pricing and proposal area boundaries, if needed	If not already provided, documentation of support and approval from Tribal authorities if proposed project will take place on any Tribal lands	5.9
	If necessary, second phase grant window for remaining needs		
	Curing, as necessary		
Negotiation Phase closes			
Finalization	Announcement of provisional determinations, subject to NTIA approval	Irrevocable standby letter of credit from financial institution	5.12.2
	Submission of Final Proposal to NTIA	Bankruptcy opinion letter from legal counsel confirming proceeds from letter of credit are not "property"	5.12.2

Appendix D: Proposed scoring rubric

The final expanded proposed scoring rubric will be included in this Appendix in the version of this Initial Proposal that is submitted to NTIA. It will fulfill NTIA's full guidance and take the NTIA scoring rubric template as a model. See Scoring rubric for more details.