

BroadbandOhio

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**State of Ohio  
Initial Proposal, Volume II  
Broadband Equity, Access,  
and Deployment (BEAD)  
Program**

October 2023



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# Introduction

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BroadbandOhio has drafted the following document to meet the requirements for Volume 2 of the Broadband Equity, Access and Deployment (BEAD) Initial Proposal:

- Requirement 1 – Outline of long-term objectives for deployment, equity, economic growth and job creation
- Requirement 2 – Identification and outline supporting and coordinating with local, Tribal and regional in planning and ongoing deployment efforts
- Requirement 4– Description and certification of local coordination
- Requirement 8 – Detailed description of deployment subgrantee selection, including:
  - Description of subgrantee section and scoring approach
  - Definition of project areas where projects will be solicited and description of how universal coverage will be insured in subsequent founding rounds
  - Outline of process for identifying the Extremely High Cost Per Location Threshold and how the process will be used in subgrantee selection
  - Description of how Ohio will ensure prospective subgrantees meet minimum requirements outlined in the BEAD NOFO
- Requirement 9 - Description of fair and open non-deployment subgrantee selection
- Requirement 10 - Description of initiatives that BroadbandOhio will implement without selecting a subgrantee and relevant reasoning
- Requirement 11 - Description of how Ohio will integrate labor standards and protections into requirements of prospective subgrantees

- Requirement 12 - Description of how Ohio and subgrantees will ensure an available, diverse, and highly skilled workforce
- Requirement 13 - Description and certification of how Ohio will recruit, use and retain minority businesses, women-owned business enterprises (WBEs), and labor surplus area firms
- Requirement 14 - Identification of steps to reduce costs and barriers to deployment
- Requirement 15 - Description of Ohio's climate threats and proposed mitigation methods
- Requirement 16 - Description of low-cost service options and certification that all subgrantees will participate in the Affordable Connectivity Program or any successor program
- Requirement 17 - Description of the planned use of the 20 percent of total funding allocation and certification that Ohio will adhere to relevant BEAD program requirements
- Requirement 18 - Description of BroadbandOhio's regulatory approach, identifying which relevant laws will or will not be waived
- Requirement 19 - Certification of Ohio's intent to comply will requirements of the BEAD program and description of subgrantee accountability procedures
- Requirement 20 - Description of a middle-class affordability plan

Ohio will incorporate any guidance received from the National Telecommunications and Information Association (NTIA) on this draft of Volume II of the BEAD Initial Proposal to ensure compliance with the BEAD requirements, as enabled by existing provisions.<sup>1</sup>

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<sup>1</sup>[Ohio House Bill 33 by the 135th General Assembly, Section 122.4017.](#)

Following a 30-day public comment period, and review and consideration of received comments, BroadbandOhio plans to submit this document to NTIA, in partial fulfillment of the BEAD Initial proposal requirements.

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# Objectives (Requirement 1)

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**Req 2.1.1.1. Outline of Ohio’s long-term objectives** for deploying broadband; closing the digital divide; addressing access, affordability, equity, and adoption issues; and enhancing economic growth and job creation. This content is identically described in Ohio’s BEAD Five-Year Action Plan, submitted to NTIA on June 27, 2023.

## 2.1 Vision

The Ohio economy ranks #7 in the US<sup>2</sup> and #24 in the world.<sup>3</sup> Thanks to the hard work and innovation of Ohioans, we stand on the precipice of the next phase of growth.

Innovation has a long and deep history in our state. The Wright brothers flew the world’s first successful airplane. Thomas Edison secured more patents than any other American. Twenty-five astronauts are Ohio natives; they have completed three trips to the moon, among numerous other space flights. Ohio has also led innovation in bringing high-speed internet access to our K-12 schools, higher education institutions, and local governments by creating a nationally recognized statewide Research and Education Network called OARnet to deliver ultra-fast fiber-optic connectivity.

The strength of our economy and the skills and ingenuity of our workforce attract top American companies. For example, Intel will invest more than \$20 billion to build two factories and establish a new epicenter for advanced chipmaking in Ohio.<sup>4</sup> Amazon Web Services (AWS) announced estimated investments of \$7.8 billion to be made by the end of 2029 to expand its data center operations in central Ohio, representing the second-largest single private sector company investment in Ohio's history.<sup>5</sup> Ford has announced plans to invest \$1.5 billion and

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<sup>2</sup> [GDP by State](#), World Population Review, 2020

<sup>3</sup> [GDP Ranked by Country](#), World Population Review, 2020

<sup>4</sup> [Intel Announces Next US Site with Landmark Investment in Ohio](#), Intel newsroom, 2022

<sup>5</sup> [Governor DeWine Announces Plans for Estimated \\$7.8 Billion Investment by Amazon Web Services in Ohio](#), Governor of Ohio News Releases, 2023

create 1,800 jobs in Avon Lake to assemble an all-new electric commercial vehicle for Ford Pro customers (debuting mid-decade), plus plans to invest \$100 million and create 90 jobs in the Lima Engine and Sharonville transmission plants.<sup>6</sup> The Cleveland Clinic has announced a \$1.3 billion capital investment that will create 2,000 jobs at a new one-million-square-foot Neurological Institute and expand the Cole Eye Institute and the research facilities of the Cleveland Innovation District.<sup>7</sup> Joby Aviation Inc. announced plans to invest at least \$477.5 million to build an electric air taxi manufacturing facility at the Dayton International Airport, creating 2,000 new jobs in the Miami Valley and continuing Ohio's legacy in aviation leadership.<sup>8</sup> To capitalize on these investments and realize their potential for innovation, all Ohioans must be connected to the modern economy through affordable high-speed internet. Otherwise, they face a competitive disadvantage in today's technology-infused, global economy. And, as the pandemic demonstrated, without high-speed internet at home, children cannot complete homework, and adults cannot access the full range of job and upskilling opportunities.

Internet access is the gateway to this technology-charged economy. More and more jobs require digital skills, and internet access opens the door to reskilling, upskilling, and working remotely, regardless of zip code. Internet access creates opportunities for business creation, expansion, and growth statewide. Key Ohio industries stand to benefit from applications like digital agriculture and smart transportation enabled by high-speed internet.

Internet access is also the way that people connect with their communities and the world. The internet connects people with loved ones; this connectivity can be especially important for older Americans. Today, many people use multiple internet channels (e.g., social media, email, and video calling) to stay connected with family, friends, and the world.

With the acute understanding that lack of broadband and internet access limits opportunities for businesses and residents in Ohio, the DeWine-Husted Administration has made concerted efforts

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<sup>6</sup> [Corporate Investments Continue to Pour into Ohio](#), JobsOhio, 2022

<sup>7</sup> Ibid

<sup>8</sup> [Governor DeWine, Lt. Governor Husted, Joby Aviation Announce Historic Manufacturing Site in Ohio](#), Governor of Ohio Press Releases, 2023.

toward establishing Ohio as a leader in broadband deployment and utilization, as well as identifying the opportunities to fill the gaps in access to high-speed internet for all Ohioans. Since the announcement of the 2019 Ohio Broadband Strategy, the state has made great progress, including the establishment of the office of BroadbandOhio in March 2020 as an executive branch state agency housed within the Ohio Department of Development to lead broadband deployment and digital opportunity efforts.

Looking ahead and building on progress to date, the State of Ohio specifically envisions broadband deployment and digital participation within the state along 4 key priorities:

- A. Bring reliable, affordable, high-speed internet to all Ohioans, in their homes and communities;
- B. Promote the creation of world-class broadband networks throughout the state, via the use of best-in-class technologies;
- C. Enable participation in the modern economy; and
- D. Empower Ohioans through training, device access, and digital skills.

## 2.2 Goals and Objectives

With the above vision, the State of Ohio and BroadbandOhio aims to bring high-speed internet access to every Ohioan and build a best-in-class broadband network in Ohio. The strategic pillars represent the state's priorities for investment of both state and federal dollars that will be made available over the next several years. Aligned to each priority is a set of core pillars / goals that the State of Ohio has defined. BroadbandOhio has additionally defined a set of specific objectives for the purposes of BEAD, which will help guide how Ohio leverages BEAD to achieve this strategic vision.

Vision	Goal	Objective
A. Bring reliable, affordable, high-speed internet to every Ohioan, in their home and in their community	A1. Invest in last-mile infrastructure deployment	A1a. All Ohioans have access to at least 100/20 Mbps reliable internet by 2030
		A1b. Award first round of BEAD grants by 2024
		A1c. Increase ACP uptake in Ohio to 45 percent <sup>9</sup>
		A1d. All ACP-eligible Ohioans have access to a \$30/month plan, regardless of the status of ACP funding availability
	A2. Expand middle mile network to facilitate last mile deployment	A2a. Reduce the median cost of middle mile by 5-8 percent
		A2b. Increase network resiliency and redundancy
	A3. Remove barriers to broadband deployment and maximize asset reuse	A3a. Facilitate last-mile build-out by reducing make-ready costs via the Pole Replacement Program
A3b. Create a standard pricing list for utilizing MARCS towers		
B. Promote the creation of world-class	B1. Keep pace with changing technology and demand	B1a. All Ohioans have access to internet technology with the highest standards of reliability, scalability, and security

<sup>9</sup> This objective will be dependent upon the continuation of ACP or an equivalent federal program.

Vision	Goal	Objective
broadband networks throughout the state, via the use of best-in-class technologies	B2. Connect community anchor institutions to serve as digital hubs	B2a. Expand availability of public Wi-Fi throughout the state
C. Enable participation in the modern economy	C1. Expand telehealth access and usage via targeted programming	C1a. Analyze 10 school districts to understand readiness to implement telehealth
		C1b. Create a telehealth steering committee
	C2. Expand access to remote education opportunities	C2a. In 2 years, identify students who lack consistent access to a high-speed internet connection
		C2b. In 3 years, identify a plan to help identified students maintain and sustain connectivity despite barriers
	C3. Support Ohio’s farmers to improve productivity by enabling digital agriculture uptake	C3a. 100 percent of farms in Ohio have access to high-speed internet
		C3b. Pilot digital agriculture use cases for future deployment
	C4. Enable safe and easy movement of people and goods via	C4a. Institute policy that accelerates fiber deployment along roads during construction projects
		C4b. Create an additional SMART highway

Vision	Goal	Objective
	foundational investments to enable intelligent transportation systems	C4c. Determine the effectiveness of SMART highways on traffic congestion
D. Empower Ohioans through training, device access, and digital skills	D1. Support workforce development initiatives that connect Ohioans to broadband deployment and digital jobs	D1a. Expand curricula and internships in middle and high school to create broadband industry career awareness
		D1b. Scale education and training programs for skill development for the broadband industry
		D1c. Increase the number of available broadband training programs
		D1d. Increase utilization of broadband training programs
	D2. Accelerate adoption, usage, and economic empowerment via Regional Digital Inclusion Alliances	D2a. Improve adoption rates both overall and for each Covered Population
		D2b. Increase share of Ohioans with access to internet-ready devices
		D2c. Increase the number of digital literacy programs available statewide

Below, we provide a description of each objective listed above, as well as associated KPIs that Ohio will track to evaluate progress.

Bring reliable, affordable, high-speed internet to every Ohioan, in their home and in their community

1. Invest in last-mile infrastructure deployment: Bring reliable, affordable high-speed internet to all Ohioans via a competitive grant process

Relevant BEAD Pillars: Broadband Deployment, Broadband Access, Broadband Affordability

Ohio seeks to invest in last-mile infrastructure deployment to ensure all Ohioans have access to reliable internet. To date, there remains a sizeable gap in access to high-speed internet for many Ohioans. According to the FCC’s service availability maps as of 31 January 2023, there were approximately 332,000 broadband service locations in Ohio without access to reliable broadband, with access challenges most acute in Ohio’s Appalachian counties.<sup>10</sup> The gaps are not only in rural areas, but also in urban areas – especially in apartment buildings and other multi-dwelling units. In addition to prioritizing the build-out of high-speed internet, affordability of subscriptions is a key priority. Even in communities where high-speed internet is available, high subscription prices make home internet unaffordable for many Ohioans.

Key objectives to address this goal include:

Objective	KPI	Baseline	Relevant BEAD pillars
A1a. All Ohioans have access to at least 100/20 Mbps reliable internet by 2030	Share of Ohio broadband serviceable locations (BSLs) with access to 100/20 Mbps reliable internet	93 percent <sup>11</sup>	Broadband deployment; Broadband access

<sup>10</sup> Reliable broadband defined as fiber, cable, copper, and licensed fixed wireless.

<sup>11</sup> Calculated as share of unique Ohio BSLs with 1+ internet service provider offering 100/20 Mbps broadband service via technologies that are not unlicensed FWA or satellite. Data from FCC Data maps, downloaded 31 January 2023.

Objective	KPI	Baseline	Relevant BEAD pillars
A1b. Award first round of BEAD grants by 2024	Share of BEAD grants awarded	0 percent	Broadband deployment
A1c. Increase ACP uptake in Ohio to 45 percent <sup>12</sup>	ACP uptake rate	41 percent <sup>13</sup>	Broadband affordability
A1d. All Ohioans would have access to an ACP-eligible (\$30/month) plan, regardless of the status of ACP funding availability	Share of Ohio HHs with access to at least 1 affordable \$30/month internet plan	~15 percent BSLs with access to \$30/month plan for 25/3 Mbps <sup>14</sup> ~14 percent BSLs with access to \$30/month plan for 100/20 Mbps <sup>15</sup>	Broadband access; Broadband affordability

- Expand middle mile network to facilitate last mile deployment: Extend the reach of middle mile network through unserved areas of the state to help facilitate last mile deployment, increase competition, and improve affordability

Relevant BEAD Pillars: Broadband Deployment, Broadband Access, Broadband Affordability

Last mile connection affordability could be enabled via increased middle mile options. Today, there are at least 10 different middle mile network providers in Ohio, with key players including

<sup>12</sup> Objective is dependent upon the continuation of federal ACP funding or an equivalent program.

<sup>13</sup> [Affordable Connectivity Program Enrollment Dashboard](#). Education Superhighway. As of April 13, 2023

<sup>14</sup> Access to an affordable plan is defined by FCC availability data and market research. For example, a BSL has an affordable 25/3 plan at \$30/month IF 1 or more providers reports 25/3 service to the FCC maps AND that provider advertises a \$30/month plan with minimum speeds of 25/3. Based on 4,478,218 broadband-serviceable locations (BSLs) in Ohio as of January 31st, 2023.

<sup>15</sup> *ibid*

AT&T, Independents Fiber Network (IFN), the Ohio Middle Mile Consortium, OARnet, and Digital Access Ohio. However, certain regions in Ohio, such as the Appalachian counties, have limited middle mile access. Ohio needs more expansive middle mile to bring down last-mile deployment cost and enable universal, reliable, high-speed internet coverage.

Key objectives to address this goal include:

Objective	KPI	Baseline	Relevant BEAD pillars
A2a. Reduce the median cost of middle mile by 5-8 percent	Median cost per prem	To be determined in specific areas where middle mile funding awards are won	Broadband affordability
A2b. Increase network resiliency and redundancy	Share of uptime	To be determined in specific areas where middle mile funding awards are won	Broadband deployment; Broadband access

3. Remove barriers to deployment & maximize asset reuse: Reduce cost barriers / streamline permitting processes (e.g., railroad crossing) and leverage existing state and local assets to support infrastructure deployment

Relevant BEAD Pillars: Broadband Deployment, Broadband Affordability

To date, Ohio's efforts to reduce barriers to broadband deployment have focused on simplifying permitting and application processes related to broadband infrastructure and use of state assets by ISPs. Ohio additionally has significant assets available to support broadband deployment. OARnet's 100-Gigabit-per-second fiber network is available to hospital systems, private companies engaged in R&D, select economic development-focused projects and private data centers where OARnet clients have requested service. The MARCS towers project lets ISPs

broadcast via the publicly owned Multi-Agency Radio Communications System, expanding their reach into unserved areas.

Key objectives to help achieve this goal include:

Objective	KPI	Baseline	Key relevant BEAD pillars
A3a. Facilitate last-mile build-out by reducing make-ready costs via the Pole Replacement Program	Average make-ready cost	To be determined through survey of ORBEG grant recipients	Broadband deployment; Broadband affordability
A3b. Create a standard pricing list for utilizing MARCS towers	Utilization rate of MARCS towers	n/a	Broadband deployment; Broadband affordability

Promote the creation of world-class broadband networks throughout the state, via the use of best-in-class technologies

1. Keep pace with changing technology and demand: Ensure Ohio's broadband infrastructure always meets the highest standards of reliability and scalability through efficient upgrades and by upholding standards in grants and permitting processes

Relevant BEAD Pillars: Broadband Deployment

Ohio aims to keep up with the pace of changes in broadband demands in its network development efforts. The increasing data, throughput and latency demands of new applications along with scientific and technological advances means that what is considered "high-speed internet" will continue to change. In the early 2000s, common uses of the internet were simply email and web browsing; and at that time, the FCC defined *broadband* as 200/200 Kbps. In 2010, that definition was updated to 4/1 Mbps as usage, data demands and file sizes scaled. Then in

2015, the definition of broadband was again updated to 25/3 Mbps, as video and streaming usage took off.

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Key objectives for achieving this goal include:

Objective	KPI	Baseline	Key relevant BEAD pillars
B1a. All Ohioans have access to internet technology with the highest standards of reliability, scalability, and security	Share of BSLs with access to fiber or licensed spectrum	43.5 percent Ohio BSLs with fiber access <sup>16</sup> , and 79.4 percent with fiber / fixed wireless access <sup>17</sup>	Broadband deployment
	Share of ISPs across Ohio compliant with NIST cybersecurity measures	Not available, to be determined during BEAD application process	
	Share of fiber deployment materials sourced within United States for BEAD projects	Not available, contingent upon BEAD deployment start	

2. Connect community anchor institutions to serve as digital hubs: Empower CAIs as local hubs for connectivity, digital inclusion, and innovation through access to Gigabit symmetrical service

Relevant BEAD Pillars: Broadband Deployment, Broadband Access, Broadband Adoption, Digital Opportunity

Ohio plans to support Community Anchor Institutions (CAIs) so that they can serve as digital hubs for Ohioans. Ohio has a broad array of CAIs that provide needed services to local

<sup>16</sup> Calculated as [Unique Ohio BSLs with access to 1 or more ISP that provide fiber broadband with greater than 0/0 speed] / [All unique Ohio BSLs]. Data from FCC Data maps, downloaded 31<sup>st</sup> January 2013

<sup>17</sup> Calculated as [Unique Ohio BSLs with access to 1 or more ISP that provide fiber, licensed FWA, or licensed-by-rule FWA broadband with greater than 0/0 speed] / [All unique Ohio BSLs]. Data from FCC Data maps, released Nov 18, 2022.

communities, including access to health and wellness services, formal and informal education and skill building, and spaces for various community events. Many already function as digital hubs, where members of the community can go to use the internet, access, or borrow devices, and take courses to build digital skills. Others need more resources to expand their offerings to meet the needs of residents.

Key objectives for achieving this goal include:

Objective	KPI	Baseline	Key relevant BEAD pillars
B2a. Expand availability of public Wi-Fi throughout the state	Count of BSLs without access to at least 1 CAI that offers public Wi-Fi within 5 miles	62,425 BSLs <sup>18</sup>	Broadband deployment; Broadband access; Broadband Adoption, Digital Opportunity

Enable participation in the modern economy

1. Expand telehealth access and usage via targeted programming: Expand telehealth access & usage by linking Ohio's health systems to schools and expanding current program to additional health priorities

Relevant BEAD Pillars: Broadband Adoption, Digital Opportunity

The 2019 Broadband Strategy highlighted mental health as a concern for Ohio. At the time, Ohio ranked in the bottom quartile for incidence of Adverse Childhood Experiences (ACEs). The pandemic exacerbated the health crisis, especially as alcohol and substance use rose

<sup>18</sup> FCC Broadband data map, HIFLD data, State Library of Ohio data, Ohio Department of Health data

significantly, according to the Ohio Department of Mental Health and Addiction Services.<sup>19</sup> Despite the small improvements in certain metrics, improving health outcomes for Ohioans, especially amid the nationwide, multi-year trend of declining mental health, is a priority for Ohio. Improving access to telehealth, especially to treat mental health issues, would help achieve several broader goals of the DeWine-Husted administration, including those set forth in the Ohio Department of Health’s State Health Improvement Plan.<sup>20</sup> Broadening internet availability would help the Ohio Department of Health (ODOH) meet its goals for improving access to care.

Key objectives include:

Objective	KPI	Baseline	Key relevant BEAD pillars
C1a. Analyze 10 school districts to understand readiness to implement telehealth	Number of school districts analyzed	0	Broadband adoption; digital opportunity
C1b. Create a telehealth steering committee	Establishment of telehealth steering committee	In progress	Broadband adoption

- Expand access to remote education opportunities: Ensure all students & teachers have access to reliable internet and internet-capable devices to access digital learning at home & school

Relevant BEAD Pillars: Broadband Access, Broadband Adoption, Digital Opportunity, Economic Growth and Job Creation

<sup>19</sup> [Breaking Point. Ohio’s Behavioral Health Workforce Crisis](#). The Ohio Council of Behavioral Health & Family Providers

<sup>20</sup> [ODH State Health Improvement Plan](#). Ohio Department of Health (2020-2022)

As all Americans remember, remote education was the only learning available to millions of students during the pandemic; school closings affected 50 million students. Many Ohio students still suffer from pandemic learning loss, particularly among vulnerable populations.

Internet access has clear benefits for school-aged children. The internet enhances classroom learning. Digital skills give school-aged children access to a wide range of knowledge and resources that are important for accessing job opportunities in the digital economy. Wi-Fi can enable virtual field trips, coding classes, digital guest teachers, and more. Internet access is also needed at home, especially as online homework has become a big part of education.

Key objectives to help promote internet access for education include:

Objective	KPI	Baseline	Key relevant BEAD pillars
C2a. In 2 years, identify students who lack consistent access to a high-speed internet connection	List of students without access to reliable internet & devices	Not started	Broadband access
C2b. In 3 years, identify a plan to help identified students maintain and sustain connectivity despite barriers	Plan to provide resources (e.g., subsidy, hot-spot) to students without access to reliable internet & devices	Not started	Broadband access; Broadband adoption; Digital opportunity; Economic growth and job creation

**These objectives will be further detailed and refined in the State Digital Opportunity plan.**

3. Support Ohio's farmers to improve productivity by enabling digital agriculture uptake: Enhance agricultural productivity by enabling digital agriculture uptake through identification of use cases, strategic partnerships, and expanded broadband access

Relevant BEAD Pillars: Broadband Deployment, Broadband Adoption, Digital Opportunity, Economic Growth and Job Creation

Ohio aims to support farmers by enabling digital agriculture uptake. Agriculture is key to the Ohio economy and the livelihood of many Ohioans. As of 2018, there were about 77,800 farms in Ohio, fourth most in the nation.<sup>21</sup> Using technologies like crop health sensors and spatial data management systems, digital agriculture can make Ohio farmers more efficient and resilient.

While 30 percent of Ohio farmers currently use digital agriculture technology— five percentage points above the national average – broader adoption faces challenges.<sup>22</sup> Only 64 percent of Ohio farmers have internet access, which is 18 percentage points below the national average.<sup>23</sup> Digital agriculture enables farmers to manage their farms remotely and more efficiently. These technologies allow farmers to analyze and maintain soil and crop health, making Ohio ecosystems more stable, and yields more predictable. But digital agriculture requires special equipment and software to analyze information in real time, and access to reliable broadband is key.

Key objectives to achieve this goal include:

Objective	KPI	Baseline	Key relevant BEAD pillars
C3a. 100 percent of farms in Ohio have access to high-speed internet	Share of farms with access to 100/20 Mbps internet	64 percent with internet <sup>24</sup>	Broadband deployment
C3b. Pilot digital agriculture use cases for future deployment	Number of pilot programs for digital agriculture use cases	To be set in coordination with Digital Agriculture partners – detailed	Broadband adoption; Digital opportunity; Economic growth and job creation

<sup>21</sup> [2020 Ohio Facts - Economy](#)

<sup>22</sup> [USDA Farm Computer Usage and Ownership \(2021\)](#)

<sup>23</sup> Ibid

<sup>24</sup> Figures for farms with internet access, from [USDA Farm Computer Usage and Ownership](#), 2021. Note: Speed data not available.

Objective	KPI	Baseline	Key relevant BEAD pillars
		in State Digital Opportunity Plan	

These objectives will be further detailed and refined in the State Digital Opportunity plan.

4. Enable safe and easy movement of people and goods via foundational investments to enable intelligent transportation systems: Ensure robust highway broadband access to support the deployment of smart corridors across Ohio in partnership with the Department of Transportation

Relevant BEAD Pillars: Broadband Deployment

Ohio has laid the foundation for taking full advantage of intelligent transportation technologies. The state made significant investments in building and maintaining a road network that totals 121,000 center line miles and includes 21 interstate highways. Ohio has also demonstrated a strong commitment to road safety. Ohio is building a state-of-the-art intelligent transportation system that includes smart corridors and CCTV, dynamic message signs, and ramp meters. The state has made the necessary investments in fiber optic and communications technology near roadways to support data acquisition, processing, communication, and utilization in advanced processing systems.

A range of intelligent transportation technologies could build on this foundation, including Vehicle-to-everything (V2X) communication, intelligent traffic management, fleet management, intelligent electric vehicle charging, smart corridors, and more. The further promotion of intelligent transportation systems could additionally support public safety and economic development by enabling safe and efficient movement of people and goods.

Key objectives to achieve this goal include:

Objective	KPI	Baseline	Key relevant BEAD pillars
C4a. Institute policy that accelerates fiber deployment along roads during construction projects	Right-of-way policy in place	State Right-of-Way policy in place State highway right-of-way policy not yet in place	Broadband deployment
C4b. Create an additional SMART highway	Number of SMART highways	1 SMART highway currently exists	N/A
C4c. Determine the effectiveness of SMART highways on traffic congestion	Report on effectiveness	Not started	N/A

Empower Ohioans through training, device access, and digital skills

1. Support workforce development initiatives that connect Ohioans to broadband deployment and digital jobs: Partner with universities & workforce development organizations to build the broadband network, upskill workers for digital jobs, and enable remote work opportunities

Relevant BEAD Pillars: Broadband Deployment, Broadband Adoption, Digital Opportunity, Economic Growth and Job Creation

The unprecedented investment in deploying broadband will create jobs in broadband deployment across the state and will enable opportunities for digital jobs and remote work in communities where broadband availability and adoption is currently low. Ohio's "Strengthening Ohio's Broadband & 5G Workforce" strategy, for instance, noted that federal funding of approximately \$1 billion for broadband deployment could create 2,500 direct jobs that will need to be filled, compounding the current labor shortage.

Broadband deployment will additionally bolster Ohio’s economic growth and creation of gainful jobs. From 2018 to 2028, industries that provide services are expected to grow 2.9 percent, while industries that produce goods are expected to shrink 0.4 percent. The largest growth will be in the healthcare and social assistance sector (11.3 percent).<sup>25</sup> According to a study for central Ohio, eight of the 25 occupations that will experience the greatest demand over the next decade require little more than a high school diploma and are vulnerable to technological disruptions. Workers skilled in interacting with smart devices will be critical to the economy.<sup>26</sup>

Key objectives to achieve this goal include, to be done in concert with the Broadband & 5G Sector Partnership and the “Strengthening Ohio’s Broadband & 5G Workforce” Strategy:

Objective	KPI	Baseline	Key relevant BEAD pillars
D1a. Expand curricula and internships in middle and high school to create broadband industry career awareness	Number of participants in High School Tech Pilot Program for broadband-related occupations	To be determined	Broadband deployment; Economic growth and job growth
D1b. Scale education and training programs for skill development for the broadband industry	Number of participants trained for broadband-related occupations	To be determined	Broadband adoption; Digital opportunity; Economic growth and job creation
D1c. Increase the number of available	Number of training programs offered for	To be determined	Broadband adoption; Digital opportunity;

<sup>25</sup> [2028 Ohio Job Outlook](#). Department of Job and Family Services

<sup>26</sup> [Fast Forward: The Future of Smart Work in Central Ohio](#). 2020

Objective	KPI	Baseline	Key relevant BEAD pillars
broadband training programs	broadband-related occupations		Economic growth and job creation
D1d. Increase utilization of broadband training programs	Number of participants enrolled in broadband training programs (e.g., TechCred, IMAP)	To be determined	Broadband deployment; Economic growth and job creation

2. Accelerate adoption, usage, and economic empowerment via Regional Digital Inclusion Alliances (RDIA): Partner with RDIA as they engage local communities in driving Digital Opportunity via funding for programs that promote broadband adoption and provide training on digital skills

Relevant BEAD Pillars: Broadband Adoption, Broadband Affordability, Digital Opportunity, Economic Growth and Job Creation

Universally available high-speed internet infrastructure will provide all Ohioans with access, but it is not sufficient to reach the vision of full participation in the modern economy. Enabling improved health outcomes, educational opportunities, economic development, and safer transportation requires that Ohioans have the digital devices and digital skills to productively use the internet.

Making this vision a reality will be a challenge. Even where high-speed internet is available, Ohioans face barriers to internet adoption, with some 1.3 million Ohio households (28 percent) without subscriptions to high-speed, fixed broadband.<sup>27</sup> The gap between having a broadband subscription is especially pronounced for underrepresented population groups relative to the

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<sup>27</sup> American Communities Survey. US Census Bureau (2021 5-year estimates)

general population, such as those who live below 150 percent of the federal poverty line and those in rural areas.

Gaps in device access follow the same trends but are less pronounced. Nearly 83 percent of Ohioans have access to an internet-capable device in their home (excluding those with only smartphones). But access lags among people who are over 60 (77 percent), who are English language learners (73 percent), and people with disabilities (71 percent).<sup>28</sup>

To accelerate digital opportunity, in February of 2023, Ohio established the Regional Digital Inclusion Alliances (RDIA). The role of the RDIA is to convene diverse stakeholders to coordinate regional planning efforts, support digital inclusion activities, and collect local feedback to inform Ohio's Digital Opportunity Plan, in partnership with BroadbandOhio. BroadbandOhio promotes local and regional digital inclusion success stories and ensures that the state's plan incorporates regional plans to best meet the needs of all Ohioans.

Key objectives that Ohio aims to achieve with RDIA include:

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<sup>28</sup> From U.S. Census 2021 ACS 1-Year Estimates Subject Table.

Objective	KPI	Baseline	Key relevant BEAD pillars
D2a. Improve adoption rates both overall and for each Covered Population	Difference in internet adoption rates between covered and non-covered populations	(Among others) 20pp gap between those living on <150 percent FPL and rest of population <sup>29</sup>	Broadband adoption; Digital opportunity
D2b. Increase in share of Ohioans with access to internet-ready devices	Percent of Ohioans with a computer, laptop, or tablet device	64 percent for computer / tablet <sup>30</sup>	Broadband adoption; Broadband affordability; Digital opportunity
D2c. Increase the number of digital literacy programs available statewide	Number of new digital literacy programs	Not started	Broadband adoption; Digital opportunity; Economic growth and job creation

These objectives will be further detailed and refined in the State Digital Opportunity plan.

<sup>29</sup> ibid

<sup>30</sup> Share of Ohioans over the age of 3 who responded that they use a desktop computer, laptop computer, or a tablet on the [NTIA Internet Use Survey 2021](#)

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

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**Req 2.2.1** Below includes the identification and outline of steps that Ohio will take to support local and regional broadband planning processes and ongoing efforts to deploy broadband or close the digital divide. These include how BroadbandOhio will coordinate its planning efforts with the broadband planning processes of local governments, and other local and regional entities. This content is identically described in Ohio's BEAD Five-Year Action Plan, submitted to NTIA on June 27, 2023, in the Stakeholder Engagement Process (Section 5.1):

- Section 5.1.1, Ongoing efforts: Describes BroadbandOhio's work to engage stakeholders in detailed planning for BEAD since the office's founding in 2020. This work will continue until the plan is completed.
- 5.1.2, Identifying key stakeholders: Explains how BroadbandOhio designed its BEAD and DE plan – guided by the BEAD and DE NOFOs – to reach key stakeholder groups, particularly under-represented communities.

The full content from Ohio's BEAD Five-Year Action Plan, Stakeholder Engagement Process (Section 5.1) can be found in subsequent parts of this Initial Proposal.

## 5.1.1 Ongoing efforts (2020-present)

Since its inception, BroadbandOhio has believed that closing the digital divide requires a broad coalition of stakeholders. To close this divide, BroadbandOhio has worked to understand the relevant obstacles, needs, and gaps involved, and to convene a coalition of stakeholders and partners to address them. With this in mind, BroadbandOhio has initiated and joined various partnerships, as outlined below.

**Broadband and workforce partnerships.** BroadbandOhio actively participates in:

- **Ohio Broadband Alliance.** BroadbandOhio leads this coalition of over 500 members comprising ISPs, local governments, and non-profits. The alliance convenes quarterly to discuss the status of broadband in Ohio and to identify opportunities for collaborative work.

- **Broadband Expansion Program Authority.** This government authority, made up of members appointed by the Governor and Legislature, oversees the Ohio Residential Broadband Expansion Grant (ORBEG), a statewide grant program that help ISPs expand into areas lacking service by assisting with infrastructure costs and network-building. The authority receives, reviews, scores, and approves ORBEG applications, and it creates scoring criteria and applicant resources.
- **Broadband Working Group.** This group convenes key Ohio state agencies related to broadband so they can identify barriers to broadband deployment, align on priorities, collect information on assets they can leverage, and more. The Working Group consists of InnovateOhio; the Ohio Departments of Development (Office of Workforce Transformation, Governor’s Office of Appalachia), Education, Administrative Services, and Higher Education; OARnet; and the Ohio Education Computer Network Management Council.
- **Regional Digital Inclusion Alliances (RDIA’s).** In October 2022, BroadbandOhio established Regional Digital Inclusion Alliances (RDIA’s) across five regions of the state (Northwest, Northeast, Central, Southeast, Southwest) to serve as collaborative partners with BroadbandOhio. These alliances bring together diverse stakeholders to coordinate regional planning, support digital inclusion, and collect local feedback to inform Ohio’s Digital Opportunity Plan. The RDIA selection process included multiple interviews and a survey. Coordination among organizations designated as RDIA’s kicked off in February 2023.
- **Broadband and 5G Sector Partnership.** This partnership designs and distributes curricula and training programs across Ohio and promotes career awareness to supply the industry with a skilled workforce.
- **Ohio Industry Sector Partnership.** Meeting bi-weekly, this partnership facilitates collaboration among businesses, education and training providers, and other community leaders who seek to improve their region’s workforce. These collaborations yield a more skilled workforce and benefit both Ohioans and Ohio's job-creators.

**Infrastructure buildout partnerships.** BroadbandOhio has conducted numerous meetings and site visits and has participated in multiple conferences and panels. These efforts have helped to build relationships with providers and to understand their needs and barriers. BroadbandOhio is working with these partners to find mutually beneficial solutions that facilitate infrastructure buildout in the state. Examples include:

- BroadbandOhio holds weekly meetings with OARnet’s leadership to stay aligned on strategic priorities and progress on execution.

- Digital Access Ohio has joined a JobsOhio partnership with Agile Networks to expand high-speed internet access to underserved areas of the state, specifically in Southeast Ohio.
- Conferences and panels
  - WISPA (Wireless Internet Service Providers Association) roundtables
  - NCTA (The Internet & Television Association) Conference, panel participation
  - Fiber Broadband Association, “fireside chat” participation
- Site visits
  - Introduction to Intel to identify broadband needs and opportunities as the company opens two new facilities in Ohio
  - Medina County visit with the Governor’s Office of Workforce Transformation to discuss broadband expansion
  - Preble County Commissioners discussion of broadband expansion
  - City of Cleveland and Digital C to meet with leadership and understand needs

**Local government and government associations.** BroadbandOhio has worked with government leaders and associations to understand local needs and perspectives, to remain up to date about specific opportunities where they can assist or work in partnership with local governments to increase access to broadband, and to use the associations’ networks to disseminate information about BroadbandOhio’s work (that is, stakeholder survey distribution). Example associations and government partners include:

- **The Governor’s Office of Appalachia (GOA)** works to foster economic and community development and partnerships to improve the lives of those living in the region.
- **The Ohio Township Association** is a statewide organization dedicated to promoting and preserving Ohio townships and township government through educational materials, forums, and lobbying efforts.
- **County Commissioners’ Association of Ohio (CCAO)** advances effective county government for Ohio through legislative advocacy, education and training, technical assistance and research, quality enterprise service programs, and greater citizen awareness and understanding of county government.
- Rochester Hills

**Project-specific coalitions.** BroadbandOhio has participated in multiple cross-county and cross-state coalitions to collaboratively drive broadband expansion. Examples include:

- Middle Mile Coalition
- ARISE Coalition
- Tri-County Coalition for Youngstown

**Surveys.** Over the past three years, BroadbandOhio has conducted multiple surveys to identify barriers and areas for improvement. These surveys were conducted prior to the BEAD-DE stakeholder engagement efforts and included:

- ORBEG recommendations, in which BroadbandOhio solicited feedback from participants in the initial round of the ORBEG grant process to determine how to improve the program
- Survey on barriers to pole-permitting (to ORBEG applicants)

**Digital opportunity engagements.** BroadbandOhio has supported digital opportunity initiatives and partnerships since early after the office was founded. Engagements and partnerships have included state agency partnerships as well as participation in and support of community-based non-profits that focus on digital inclusion. Engagement has included:

- JobsOhio (bi-weekly)
- PCs for People (monthly)
- Riverside (monthly)
- Conferences and panels
  - County Commissioners' Association of Ohio (CCAO) panel to discuss BroadbandOhio's Accelerator program
  - Connecting the Heartland panel
  - Education Conference (subject: K-12 funding)
- Site visits and ad-hoc meetings
  - Riverside 2.0 school visit
  - Defiance County Agribusiness
  - Miami Valley Educational Service Center

- **FCC challenge-specific engagements (Nov. 22 – Jan. 2023).** BroadbandOhio conducted about 15 public sessions to inform and educate Ohio residents, local governments, and partners about why the FCC challenge process is important and how they can participate. Engagement activities included:
  - A Q&A webinar on the FCC challenge process
  - Holding a meeting with the Ohio Library Council to support dissemination of FCC challenge information in local areas, as well as to inform librarians on how they can help residents submit a challenge
  - Meeting with representatives of the NTIA and East Cleveland to discuss challenges submitted by BroadbandOhio

### 5.1.2 Identifying key stakeholders

Stakeholders were identified and engaged as the Five-Year Action Plan was being developed to ensure that stakeholders were included throughout the process. BEAD and SDOP stakeholder engagement efforts were done in tandem and leveraged shared resources (the communications team, RDIA, surveys, etc.) to collect relevant information for both initiatives and to avoid duplicative efforts and messaging.

The next step of the formal stakeholder engagement process was aggregating the contact information and relationships that BroadbandOhio already had for state and local government entities, non-profits, community organizations, internet service providers, and other private businesses. This list was analyzed to identify gaps in the coverage of underrepresented communities at the regional level. These gaps were filled through outreach to all minority-serving institutions (MSIs) in the state of Ohio; internet searches of municipal and county websites and 501c3lookup.org; use of RDIA, digital navigator, and local partners' own networks; and general internet research.

The last two sections of the BEAD Five-Year Action Plan, 5.1 Stakeholder Engagement Process, are described below and is referenced in **2.3.1**:

- 5.1.3, Focused BEAD-SDOP stakeholder engagement efforts: Details how BroadbandOhio reached out to stakeholders to engage them in the BEAD-DE planning process. Specific work included raising awareness of engagement opportunities, encouraging attendance

at in-person and virtual events, and specifically describing potential engagement opportunities.

- 5.1.4, Key takeaways: Summarizes insights from virtual and in-person listening sessions, which have been incorporated into the Five-Year Action Plan and will inform BroadbandOhio's ongoing planning efforts.

DRAFT

# Local Coordination (Requirement 4)

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(Req 2.3.1) Description of coordination conducted, the impact this coordination has had on the content of the Initial Proposal, and ongoing coordination efforts, including how Ohio will fulfill the coordination associated with the Final Proposal.

## A. Description of coordination conducted

BroadbandOhio has conducted extensive local stakeholder coordination as part of its efforts to create the Ohio BEAD Five-Year Action Plan and the State Digital Opportunity Plan (SDOP). Copied below are portions of 5.1 Stakeholder Engagement Process from the BEAD Five-Year Action Plan, which outlines these efforts.

### 5.1.3. Focused BEAD-SDOP stakeholder engagement efforts

As part of BEAD and SDOP planning, BroadbandOhio implemented a stakeholder engagement initiative over the course of two to three months. The initiative involved in-person and virtual listening sessions, state agency interviews, and three surveys targeting multiple populations.

Digital opportunity-focused engagement efforts – including 50 additional listening sessions across the state – ran in tandem with BEAD efforts, have continued through the fall of 2023, and are described further in the State Digital Opportunity plan.

The local coordination design and evaluation parameters outlined in the BEAD NOFO were incorporated throughout the planning, outreach, and engagement phases of BroadbandOhio’s stakeholder engagement efforts. The details of the approach are described below.

1. **Full geographic coverage of the Eligible Entity** was achieved through a 40-session state-wide listening tour, which visited eight cities across the five RDIAs, covering urban, suburban, and rural areas across the state. Each RDIA hosted an additional 10 sessions, for 50 sessions in total, further deepening coverage across the state.

2. **Meaningful engagement of, and outreach to, diverse stakeholder groups** was accomplished by conducting multiple in-person listening sessions with key stakeholder groups, including residents, community-based non-profits and digital inclusion practitioners, local governments, and ISPs. In addition, BroadbandOhio made ongoing contacts with organizations representing underrepresented populations and covered populations. Interviews with state agencies provided insight into the needs of various stakeholder groups and suggestions on how to best reach and communicate with said groups. Specific communication channels used to reach underrepresented populations are included in a table later in this section. (See “Touchpoints by underrepresented population.”)
3. **Multiple awareness and participation mechanisms, and other methods to convey information and outreach** were used through outreach plans and an engagement model that are described in detail later in this section. They included the following:
  - In-person listening sessions
  - Virtual listening sessions or webinars
  - Press releases ahead of events in each city
  - BroadbandOhio’s websites
  - BroadbandOhio’s social media (Facebook, Twitter, LinkedIn)
  - Handouts with contact information and a survey QR code at BroadbandOhio and RDIA events and libraries, with additional distribution through community partners at local events
  - Public distribution of BroadbandOhio’s email address on outreach materials, handouts, and online
  - E-mail
  - Local newspaper placements
  - Local newspaper articles written in collaboration with local journalists
  - Local signage (posters, specifically at libraries and community centers)
  - Digital surveys

- Print surveys targeted at un/underserved addresses and distributed through libraries, direct mail, and RDIA's.
4. **Establishment, documentation, and adherence to clear procedures to ensure transparency** are specifically noted later in this section. These measures include accessibility considerations when planning stakeholder engagement events; regular website and email updates, including posting listening session materials to the website and a recording of the BroadbandOhio Chief giving the presentation; inclusion of un/underserved households through a mailed survey that provided return postage; and regular meetings with other state agencies, RDIA's (weekly), non-profits and community organizations, local governments, and internet service provider associations.
  5. **Outreach and engagement of unserved and underserved communities, including historically underrepresented and marginalized groups and/or communities** was a key component of each stage of the development of the Five-Year Action Plan. An overview of engagement channels per underrepresented population can be found later in this section. Relationships were proactively built with local non-profits who are led by trusted community members and state agencies representing several of these populations. Listening sessions were also planned for urban, suburban and rural areas.

The remainder of this section describes the BEAD-SDOP stakeholder engagement efforts in greater detail.

## **Outreach**

To formally announce these efforts, BroadbandOhio issued a press release and posted information about BEAD and SDOP, listening sessions, a survey link, and contact information on its website. The press release was followed by social posts from the Ohio Office of Development and an email from BroadbandOhio to its key partners, including:

### **Local government and government associations, some of which include:**

- Ohio RDIA's
- Ohio Library Council
- Ohio Township Association
- County Commissioner' Association of Ohio
- Ohio Mayors Alliance
- Ohio Municipal League

- Congressional leaders and staff
- Regional staff of the Governor and Lieutenant Governor

**Internet service providers and associations, some of which include:**

- Ohio Telecom Association (OTA)
- Ohio's Broadband and Cable Association (OCTA)
- Wireless Internet Service Providers Association (WISPA)
- Wireless Infrastructure Association (WIA)

**Regional Digital Inclusion Alliances (RDIAs)** are a fundamental piece of the engagement model and contribute extensive local knowledge aimed at engaging organizations and populations that may not have been included in previous statewide outreach.

The RDIAs were formally launched at the February 2023 Digital Opportunity Summit, which drew over 250 participants state-wide and included speeches by both the executive director of the NDIA and the NTIA's digital equity director.

Leading up to the public announcement of its stakeholder engagement efforts, BroadbandOhio initiated weekly meetings with the RDIAs to address inclusivity and accessibility of all initiatives. These meetings addressed the locations of in-person listening sessions, survey distribution channels, and necessary inputs for the BEAD and SDOP plans.

To support the RDIAs, BroadbandOhio provided several resources tailored by region to market stakeholder engagement opportunities, including:

- Creating posters for RDIAs and local partners to display in public meeting places (such as coffee shops, community centers, and places of worship) about in-person listening sessions
- Drafting emails for RDIAs to share with local partners to encourage them to participate and to mobilize their own networks to do the same
- Drafting emails for RDIAs and local partners to send directly to residents marketing in-person and virtual listening sessions and including BroadbandOhio's contact information.

RDIAs worked with local reporters to publish articles in local newspapers, posted news bulletins in local newspapers, emailed the listservs of their regional CAIs, worked with local boards of

education, and posted signage in various counties to market the in-person listening sessions, particularly communities that are typically harder to reach (notably rural and low-income communities).

The Ohio Library Council provided additional local support by distributing regional posters in libraries throughout the state.

### **Transparency and inclusion**

Several steps were taken throughout the stakeholder engagement process to ensure transparency and inclusion, including:

- A press release announcing stakeholder engagement efforts and directing readers to the BroadbandOhio website
- A homepage module prominently featured on the BroadbandOhio website with a “Make Your Voice Heard” call to action
- A dedicated webpage with information on BEAD and the Digital Equity Act, details on listening sessions (featuring regular updates as events were added), an Internet Access Survey link, and a printable flyer to share information about listening sessions within communities
- Publication of listening session materials online for public viewing; distribution of presentation materials at all in-person listening sessions
- Marketing of listening sessions through RDIA to increase awareness among covered populations and geographies outside of BroadbandOhio’s hometown. RDIA leveraged numerous local channels to spread the word. (See prior section.)
- Open, in-person Q&A and virtual listening and discussion sessions with the chief of BroadbandOhio
- Attendance of NTIA representatives at all listening sessions
- Weekly meetings with RDIA to share updates and gather feedback.

Significant effort was made to reach underrepresented populations mentioned in the NOFO. The following table outlines how specific populations were reached.

Table 1: Touchpoints by underrepresented population

Population*	Partnership or coalition	Mtgs.	Listening sessions		Interview	Survey
			In-person	Virtual		
State agencies	X	X			X	
Community anchor institutions			X	X		X
Nonprofit or community-based organizations			X	X		X
Civil rights organizations			X			X
Labor organizations, unions		X	X			
Workforce development programs	X	X	X		X	
Higher education institutions		X	X		X	X
Local educational agencies			X	X		
Agencies for adult education or literacy			X		X	

Population*	Partnership or coalition	Mtgs.	Listening sessions		Interview	Survey
			In-person	Virtual		
Public housing authorities			X		X	X
Organizations representing “diverse stakeholder groups”						
Individuals w/ disabilities			X		X	
Individuals 60+			X		X	X
English language learners			X			
Individuals w/ low literacy			X	X		
People of color			X	X		X
LGBTQI+			X			X
Immigrants			X			
Veterans					X	
Incarcerated individuals (excl. federal facilities)					X	
Economic development organizations	X		X		X	

Population*	Partnership or coalition	Mtgs.	Listening sessions		Interview	Survey
			In-person	Virtual		
ISPs	X	X	X	X		X
Public Utility Commission					X	
Consumer advocacy			X			
Faith-based organizations			X	X		
Neighborhood associations			X	X		
<b>Organizations representing additional underrepresented communities</b>						
Low-income households			X	X	X	X
Individuals in rural areas			X	X		X

\*Populations defined as “diverse stakeholder groups” in BEAD NOFO IV.C.1.c.ii; Tribal Governments not included as there are none in the state of Ohio

## Summary of focused stakeholder engagement opportunities

### In-person listening sessions

Listening sessions at eight sites spanned all five geographic regions of Ohio. Each site visit included four one-hour listening sessions for internet service providers and local businesses, government entities, non-profits, and community organizations, and/or residents.

Accessibility was a deciding factor in selecting all locations. Considerations included hosting events in counties with communities of covered populations, ensuring access to transportation and free parking, and prioritizing trusted, familiar venues for the local population.

Meeting times for each entity were adjusted based on feedback from RDIA's and other local representatives. Resident sessions were intentionally held late in the day to avoid obstacles related to work and childcare commitments.

Presentation materials and handouts – including contact information and the Internet Access Survey QR code – were distributed at all sessions. Table 2 lists the locations and attendees of the in-person listening sessions.

**Table 2: In-person listening session attendance summary**

Location	Stakeholder group	Sample entities represented
Mt Gilead	ISPs/businesses	Range of small, local co-ops and statewide providers
	Government	City of Columbus, Morrow County Commissioner, City of Westerville data center lead, Fairfield Economic Development, Ohio Office of the Consumers' Council, Union County IT Director
	Nonprofits	Ohio Management Council (Connectivity Champions), Ohio Consumer Council, Morrow County Farmers Bureau, Education Service Center of Central Ohio, communication workers' union

Location	Stakeholder group	Sample entities represented
	Ohio residents	N/A
Rio Grande	ISPs/businesses	Range of small, local co-ops and statewide providers
	Government	Local municipality representatives
	Nonprofits/commu nity organizations	Department of Development, OSU Extension, Hocking Athens Perry Community Action, Connectivity Champions
	Ohio residents	Southeast residents
Cambridge	ISPs/businesses	Range of small, local co-ops and statewide providers
	Government	County leadership, planning commission representatives; Library leadership representatives
	Nonprofits	Guernsey County Senior Citizens Center, Inc. & Meals on Wheels Guernsey County
Xenia	ISPs/businesses	Range of small, local co-ops and statewide providers
	Government	City of Dayton CIO, Miami Valley Regional Planning Commission
	Nonprofits	Ohio Management Council (Connectivity Champions), United Way, National Church Residences, local communications union, Miami Valley Regional Planning Commission
	Ohio residents	Spring Valley Township and Xenia Township residents

Location	Stakeholder group	Sample entities represented
Toledo	ISPs/businesses	Range of small, local co-ops and statewide providers, including Buckeye Broadband
	Government	Spencer Township representative, Lucas County, and City of Toledo employees
	Nonprofits	Ohio Management Council (Connectivity Champions), Communication Workers for America, The Ability Center of Greater Toledo, Lucas Metropolitan Housing, Toledo Lucas County Public Library
	Ohio residents	Mostly urban residents (one rural); small business owners (e.g., hairdresser, photographer)
Findlay	ISPs/businesses	Primarily small providers, including Buckeye Broadband
	Government	Findlay-Hancock Community Foundation, Hancock County Office of IT
	Nonprofits	Ohio Management Council (Connectivity Champions), Financial Opportunities Center of Findlay-Hancock County (associated with Habitat for Humanity), Family Center
	Ohio residents	N/A
Cleveland	ISPs/businesses	Combination of small and large providers, including Northcoast Wireless Communications

Location	Stakeholder group	Sample entities represented
	Government	Connect Community, Chief Innovation Officer for Cuyahoga County, Digital Equity Inclusion Manager for Cleveland,  Community Health Partnerships at Cleveland Clinic, DigitalC, City Engineer for East Cleveland,  Cleveland Public Library
	Nonprofits	Ohio Management Council (Connectivity Champions), Ashbury Senior Computer Community Center (ASC3), MetroHealth, Metro West Community Development, NextGen Interactive, StepForward Training and Education, JumpStart, Wisdom Collaborative in Lake County, East Cleveland Public Library, University Circle Inc., Northeast Ohio Regional Improvement Corporation, Ohio Farm Bureau, Union Miles Community Development, Cuyahoga Valley Career Center, CREW Foundation
	Ohio residents	Cuyahoga Metropolitan Housing Authority, Cleveland Metropolitan School District, Midtown Cleveland representative, ASC3
Youngstown	ISPs/businesses	Mason Cable, Universe Central Association, Lorraine Public Library, Ashtabula County Commissioner, WFMJ (reporter), Packard Motors/Packard Fiber
	Government	Representatives from Canton, Trumbull, and Mahoning Counties; Eastgate Regional Council of Governments

Location	Stakeholder group	Sample entities represented
	Nonprofits	Ohio Management Council (Connectivity Champions), Oh Wow! Children’s Center for Science & Technology, Northeast Ohio Regional Improvement Corporation, Ohio Farm Bureau, NDIA, Mercy Health Foundation, Trumbull Community Action, Oak Hill Collaborative, Farmer’s Trust Company, Youngstown Area Jewish Federation, Ohio Improvement Corporation
	Ohio residents	Hubbard County and Ellsworth Township residents

Note: “Nonprofits” also includes community organizations

**Virtual listening sessions**

These sessions consisted of six virtual webinars dedicated to government (1 session), nonprofits or community organizations (1), internet service providers (1), and residents (3). This effort involved:

- Marketing virtual sessions for each stakeholder group in tandem with efforts to convene in-person sessions
- Fostering engagement in digital environments using polls, direct chat functionality between attendees and BroadbandOhio panelists, chat functionality between attendees, a Q&A tool with live answer responses, and live discussion. Table 3 lists the virtual sessions and attendees.

**Table 3: Virtual listening session attendance summary**

Date	Stakeholder groups	Sample attendees
March 17, 2023	Local government	Washington County Commissioner, Northeast Ohio Four-County Regional Planning and Development Organization, Ohio Center for

		Autism and Low Incidence, Sustainable Columbus, OARnet, FairlawnGig
March 28, 2023	Ohio residents	Rhodes State College Digital Ag; residents of Allen County, Springfield
April 5, 2023	Nonprofits/ community organizations	Columbus Metropolitan Library, Creative Housing, Ohio Connectivity Champions, Montgomery County Educational Service Center, Great Lakes Community Action Partnership, Circle Health Services, Shelby County representatives, non-profit law firm
April 12, 2023	Ohio residents	Advocates for Basic Legal Equality; Omni Fiber; residents of Highland County, Toledo, Mason, Vinton County, Wilmington
April 18, 2023	ISPs	National, statewide, and local internet service providers
May 2, 2023	Ohio residents	Multiple, including advocate for broadband equity in Miami Valley

**Unions and worker organizations**

Ohio has engaged unions and worker organizations as part of its broadband-related efforts, including:

- **“Strengthening Ohio's Broadband & 5G Workforce” strategy:** The Communications Workers of America (CWA) has been engaged by the Governor’s Office of Workforce Transformation to solicit input for the above strategy. The discussion covered the projected labor gap, existing workforce and their skillset, and CWA’s suggestions for Ohio

regarding workforce readiness, including hiring and re-hiring of workers already equipped with skills, and reviewing safety and training programs currently available.

- **BEAD-SDOP:** Ohio has received input from union and worker organizations during its BEAD process through multiple channels, including:
- **Listening sessions:** CWA members have attended two BEAD-SDOP listening sessions (Mt. Gilead, Toledo) and have shared perspectives regarding barriers, programs and partners, and solutions and collaboration areas toward bridging the digital divide
- **Public comment:** CWA has provided input on Volume I of the BEAD Initial Proposal, sharing its input regarding proposed challenge modifications, ways to maximize transparency and accountability during the challenge process, and suggestions on evaluating submitted challenges.

### State agency interviews

BroadbandOhio engaged 17 state agencies and the Ohio State University Digital Agriculture program in interviews of more than 30 agency representatives to understand their goals, the barriers to broadband access facing the communities they serve, potential solutions that could be accelerated by broadband and digital opportunities, existing programs and partners, and opportunities for collaboration. Agencies interviewed included:

- Department of Aging
- Department of Agriculture
- Department of Commerce
- Department of Developmental Disabilities
- Department of Education
- Department of Health
- Department of Higher Education
- Department of Job and Family Services
- Department of Natural Resources
- Department of Rehabilitation and Correction

- Department of Transportation
- Department of Veterans Services
- Governor’s Office of Workforce Transformation
- JobsOhio
- Ohio Housing Finance Agency
- Ohio Public Library Information Network (OPLIN)
- Public Utilities Commission of Ohio
- The Ohio State University Digital Agriculture

## Surveys

Three surveys were developed for BEAD and SDOP stakeholder engagement efforts, each of which was targeted at different stakeholder groups. These surveys are the Internet Access Survey, Community Anchor Institution (CAI) Survey, and Public Housing Authority Survey.

### Internet Access Survey

The Internet Access Survey had tailored questions for five different types of stakeholder entities: government entities, non-profit or community organizations, internet service providers, and other private businesses. The survey was developed in partnership with the Ohio Digital Equity manager to ensure that only one survey was needed to meet the objectives for both plans and to avoid “over-surveying.” The survey’s objective was to gather information about broadband infrastructure availability, affordability, digital devices and digital skills, and areas where BroadbandOhio could provide support to a range of stakeholders across the state. The RDIA’s were consulted on survey development and distribution strategy to ensure accessibility and inclusivity.

The Internet Access Survey was primarily distributed through three channels:

1. Print surveys made available at Ohio libraries and RDIA-sponsored community events
2. Print surveys mailed to over 10,000 unserved and underserved households; including return postage

3. A digital survey link distributed at in-person and virtual BEAD and DE listening sessions, posted on Office of Development social media, and emailed to RDIA local networks and all stakeholders that received the above-mentioned press release via email.

RDIA's conducted additional surveys in partnership with local colleges and universities. For example, the RDIA for the Northwest region of Ohio (Toledo Lucas County Public Library) partnered with Bowling Green State University (BGSU) to send surveyors into various communities' downtown areas, where they handed out surveys and helped populations such as senior citizens, individuals with disabilities, and unhoused people to complete the survey.

### **CAI Survey**

The CAI survey was created to better understand the technology in place at CAIs, the scale of the populations they serve and the access they provide to residents across Ohio. The survey was distributed to CAIs throughout Ohio via the state agencies overseeing these institutions, including the Departments of Aging, Commerce, Education, Health, Higher Education, and Public Safety, and the Ohio Library Council. Together, these entities reach all types of CAIs considered for funding, including colleges, schools (public and private), childcare centers, universities, libraries, hospitals, urgent care centers, public health departments, nursing homes, fire stations, and EMS stations.

### **Housing Authority Survey**

An online survey was distributed to property developers and managers through the Ohio Housing Finance Agency (OHFA). OHFA began collecting information about wiring in multi-dwelling units (MDUs) in 2020. This survey was built to better understand existing units' size and wiring, MDU residents' connectivity challenges, and barriers property developers and managers face when trying to increase access to affordable internet in their buildings.

### **RDIA feedback**

Feedback forms were provided to the RDIA's to facilitate data collection at ongoing sessions so that insights from these sessions could be incorporated into the BEAD and SDOP plans. Feedback forms included sample questions to use in listening sessions and space for the RDIA's to capture insights about barriers and strategies pertaining to broadband. They were also asked

to provide information about any physical infrastructure and programming specific to the community participating.

The fourth section of the BEAD Five-Year Action Plan, 5.1 Stakeholder Engagement Process, outlines the takeaways from stakeholder engagement efforts above, and is included in this document, **Appendix 1**.

**B. Impact of above coordination on the Initial Proposal:**

**BroadbandOhio has reflected the results of the above stakeholder coordination into this Initial Proposal in ways including but not limited to the following:**

**Existing Broadband Funding:** BroadbandOhio collaborated with local government and government associations (e.g., CCAO) to understand broadband efforts funded by local monies, ahead of BEAD Challenge Process and the de-deduplication process.

**CAI definition:** BroadbandOhio's approach to CAIs was discussed with multiple stakeholders during the BEAD-SDOP listening tour, with the RDIA leaders, and published for public comment within the Five-Year Action plan. To identify CAIs and determine their eligibility, BroadbandOhio conducted a state-wide survey, and collaborated with state agencies (e.g., OPLIN, Management Council, Ohio Department of Health) to compile data on CAIs within Ohio, ahead of publishing volume 1 of the Initial Proposal for public comment, and continued to receive feedback during the public comment period.

**Subgrantee process:** BroadbandOhio collected input from ISPs and other stakeholders to understand key factors to be considered for setting EHCPLT, through existing stakeholder groups (e.g., ISP associations such as OTA, OCTA, WISPA, WIA, Broadband Alliance)

**Workforce preparedness:** BroadbandOhio coordinated with Governor's Office of Workforce Transformation to connect with unions and labor organizations (2.3.1), lead implementation of the State of Ohio's Broadband and 5G Workforce Strategy (2.8.1), and ensure the inclusion of Minority Business Enterprises (MBEs), Women's Business Enterprises (WBEs), and Labor Surplus Area Firms (2.9.1). BroadbandOhio also coordinated with the Ohio Department of Development

Minority Business Unit to design and identify strategies and data tracking approaches to ensure MBE / WBE / labor surplus area firm inclusion.

**Cost and barrier reduction:** BroadbandOhio collected input on key barriers for broadband deployment from listening session participants, which have been folded into the Five-Year Action Plan when considering key barriers to address, and have shaped mitigation strategies designed. The BroadbandOhio Internet Access Survey also collected insights into key barriers to broadband expansion and adoption.

Key barriers to broadband deployment:

- During the statewide listening tour, listening session participants identified the following barriers to deployment (non-exhaustive): Population density, incomplete view of service availability, industry participation, gaps in inside wiring and/or Wi-Fi equipment in multi-dwelling units (MDUs), labor shortage, supply chain issues and materials availability
- ISP respondents to the BroadbandOhio Internet Access Survey cited a negative business case due to low density of subscriber, and burdensome costs or processes for access to poles as the top barriers for broadband infrastructure expansion<sup>31</sup>

Key barriers related to non-deployment factors:

- During the statewide listening tour, listening session participants identified the following barriers related to non-deployment factors (non-exhaustive): Affordability of subscriptions, knowledge of the Affordable Connectivity Program, customer education and digital literacy, lack of interest
- Resident respondents of the BroadbandOhio Internet Access Survey cited broadband availability and price as the top barriers for internet adoption<sup>32</sup>

**Middle class affordability plan:** Leveraged resident responses to the state-wide survey regarding willingness to pay to identify a benchmark for internet plan provided for middle class affordability.

C. Ongoing coordination efforts, including how Ohio will fulfill the coordination associated with the Final Proposal

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<sup>31</sup> BroadBandOhio Internet Access Survey, as of July 11, 2023. Response N = 27.

<sup>32</sup> BroadBandOhio Internet Access Survey, as of July 11, 2023. Response N = 747

BroadbandOhio continues to conduct regular coordination efforts listed above in 2.2.1 and in the preceding content here. Specifically, BroadbandOhio intends to provide technical assistance to stakeholders during the challenge process and the subgrantee process, as outlined below:

**Conduct technical assistance during the challenge process to inform and assist stakeholders in understanding the process.** Key efforts to ensure transparency and robust communication with stakeholders include:

- A landing page for the Challenge Process prominently featured on the BroadbandOhio website that provides relevant information for the challenge process in one place
- State-wide and multi-stakeholder marketing of challenge process leveraging multiple channels, including:
- BroadbandOhio's own channels, including webpage postings announcing challenge process and directing readers to the BroadbandOhio website; emails to the Broadband Alliance listserv and to the Broadband Working group (state agency partners); and postings to BroadbandOhio's social media channels
- RDIA's and their numerous local channels to spread the word, similar to those leveraged for Stakeholder Engagement as outlined in the Five-Year Action Plan, to increase awareness in geographies outside of BroadbandOhio's hometown
- Stakeholder groups, such as local government leaders, ISPs and ISP associations, non-profits, CAIs, residents, Broadband stakeholder alliance groups, state government associations, and others
- Publication of relevant documentation (e.g., guidebook, frequently asked questions, any applicable submission templates) on the BroadbandOhio website prior to launch of challenge process
- Public webinar(s) / technical assistance / Frequently Asked Questions with BroadbandOhio leaders prior to launch of challenge process to walk stakeholders through the challenge process and address any questions

**Conduct technical assistance during the subgrantee selection process to inform and assist stakeholders in understanding the process.** Key efforts to ensure transparency and robust communication with stakeholders include:

- A landing page for the Subgrantee Selection Process prominently featured on the BroadbandOhio website that hosts relevant information for the subgrantee selection process in one place
- State-wide and multi-stakeholder marketing of subgrantee selection process leveraging multiple channels, including:
- BroadbandOhio's own channels, including webpage postings announcing subgrantee selection process and directing readers to the BroadbandOhio website; emails to the

Broadband Alliance listserv and to the Broadband Working group (state agency partners); and postings to BroadbandOhio's social media channels

- RDIA's and their numerous local channels to spread the word, similar to those leveraged for Stakeholder Engagement as outlined in the Five-Year Action Plan, to increase awareness in geographies outside of BroadbandOhio's hometown
- Stakeholder groups, such as local government leaders, ISPs and ISP associations, non-profits, CAIs, residents, Broadband stakeholder alliance groups, state government associations, and others
- A public hearing of the Broadband Expansion Program Authority to approve the application, guidebook, and final timeline for the grant program
- Publication of relevant documentation (e.g., guidebook, frequently asked questions, any applicable submission templates) on the BroadbandOhio website prior to launch of subgrantee selection process
- Public webinar(s) / technical assistance / Frequently Asked Questions with BroadbandOhio leaders prior to launch of subgrantee selection process to walk stakeholders through the subgrantee selection process and address any questions

To ensure fulfillment of the coordination requirements associated with the Final Proposal, the activities above will be executed to ensure the following:

- Full geographic coverage: Continuation of ongoing coordination efforts with RDIA's to ensure geographic coverage
- Diverse stakeholder groups: Continuation of ongoing coordination efforts with RDIA partners and existing alliances to ensure diverse stakeholder engagement
- Multiple awareness and participation mechanisms:
- Continuation of utilizing multiple awareness efforts to collect feedback during public comment periods for Initial Proposal and Final proposal
- Continued ongoing engagement with stakeholders to encourage participation in Challenge process & Subgrantee process
- Transparency of processes:
- Holding public comment periods stipulated by BEAD
- Technical assistance for challenge process and subgrantee process, outlined above
- Outreach and engagement of unserved and underserved communities: Continuation of engagement with local, trusted non-profits and other state agencies representing traditionally under-represented communities via ongoing engagement efforts

**(Req 2.3.1.1) Local Coordination Tracker Tool to certify that the Eligible Entity has conducted coordination, local community organizations, unions and work organizations, and other groups.**

The Local Coordination Tracker Tool for BroadbandOhio regarding its stakeholder coordination efforts to date has been provided in attachment

[Local\_Coordination\_Documentation\_Tracker\_2023\_Ohio.xlsx].

**Req 2.3.2. Not applicable to Ohio.** Ohio does not encompass any federally recognized Tribes, and consequently has not conducted a formal consultation process.

DRAFT

# Deployment Subgrantee Selection (Requirement 8)

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(Req 2.4.1): Description of BroadbandOhio's detailed plan to award subgrants to last-mile broadband deployment projects through a fair, open, and competitive process.

The policies, processes, and procedures defined in the Ohio Residential Broadband Expansion Grant (ORBEG) program are BroadbandOhio's starting point for the plan to award subgrants to last-mile broadband deployment projects through a fair, open, and competitive process.<sup>33</sup> However, those processes and procedures have been adjusted to enable full compliance with the BEAD requirements.

## Description of the detailed plan to award subgrants

The details of Ohio's plan to award subgrants to last mile-broadband deployment projects are provided across sections 2.4.2 (scoring rubric), 2.4.3 (prioritization approach), 2.4.5 (compliance with Environmental and Historic Preservation (EHP) and Build America, Buy America Act (BABA)), 2.4.6 (project area definition and proposal deconfliction), 2.4.7 (plan to engage with prospective subgrantees if locations are left unserved or underserved), 2.4.9 and 2.4.10 (identification of and use of the extremely high cost per location threshold), and 2.4.11-2.4.17 (subgrantee qualifications). A high-level description of the detailed plan is provided here.

BroadbandOhio plans to run at most two rounds of a modified ORBEG program to competitively identify and provisionally award subgrant applications in a fair and open process, which prioritizes end-to-end fiber-optic projects, reaches all unserved and underserved locations in the state, and requires a minimal BEAD outlay.

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<sup>33</sup> [NTIA BEAD Initial Proposal Guidance](#), p.38.

### **Pre-Application Process:**

Aligned with the goals of openness and fairness, BroadbandOhio will provisionally set the extremely high-cost per location threshold (EHCPLT) leveraging relevant data, and insights on prior application proposals from the ORBEG Round 2 grant process, which will be run during Q4 2023 – Q1 2024. BroadbandOhio will reserve the right the lower the threshold if it becomes clear during the subgrantee process that a lower EHCPLT is necessary to reach universal coverage.

Thirty days prior to the BEAD subgrantee process application period, BroadbandOhio will open the pre-qualification filing window for prospective subgrantees. During this filing window, prospective subgrantees will be required to submit their materials and any required certifications to demonstrate their qualifications, including qualifications pertaining financial, operational, managerial, technical, compliance, ownership, and other public funding. Providers who meet all subgrantee qualifications will be able to participate in the BEAD subgrantee process. All those who qualify must sign an agreement with BroadbandOhio that, should their application be selected for BEAD awards at the same grant amount requested by the applicant or a lower agreed amount, they must accept the award and commit to delivering the deployment project in the required timeframe.

### **Application Process:**

Qualified prospective subgrantees would be allowed to submit applications for any subset of Ohio project area units, where project area units are mutually exclusive and collectively exhaustive groupings of all unserved, underserved locations, and eligible CAIs in the Ohio Broadband map. Project area units will initially be census block groups or collections of census block groups in Ohio. Applications can include any subset of project area units and will be required to provide service to all unserved and underserved locations within each project area unit in the application, and may choose to provide 1Gbps symmetrical service to eligible CAIs for additional scoring points (as described in 2.4.2). As described in section 2.4.3, the NTIA-CostQuest greenfield fiber business case modeling data will be leveraged to provide a reference subsidy level per project area unit, which will be a reference price in the scoring mechanism.

### **Post-Application, Pre-Award Commitment Offers:**

All submitted applications would be preliminarily scored and publicly posted for 28 days, during which pre-qualified providers can submit a \$0 commitment offer to any application by demonstrating that they can deliver BEAD-compliant deployment and service within 2 years without any grant funds to all PAUs applied for in the application in question, and will enter into an enforceable commitment that is functionally equivalent to the commitment that would have been made to an actual subgrantee receiving funds. The provider making the \$0 commitment offer must provide sufficient evidence that they are providing service within the project area or in an area immediately adjacent to the project area of the application, and has plans to provide service to the proposed project area of application no later than 2 years from the date of the commitment offer.

The \$0 commitment offer can be only valid if the committing provider is proposing service at the same or higher tier of broadband technology in terms of BEAD-stipulated prioritization (e.g., priority broadband project can only be subject to a \$0 commitment offer by priority broadband projects, reliable broadband projects can only be subject to a \$0 commitment offer by priority broadband projects or reliable broadband projects, etc.). A committing provider cannot make a commitment offer in an area where the committing provider has submitted an application for funding. Only those internet service providers that have completed the pre-qualification process to be a BEAD applicant will be allowed to make a commitment offer.

Applications that bid with a grant outlay amount that is a five percent or lower of the reference price described above will be exempt from these \$0 commitment offers. This \$0 commitment offer process will enable minimizing BEAD outlay by accounting for any ongoing deployment efforts by providers that would have been completed for eligible locations without the existence of BEAD funding, thereby saving funds for those areas with no existing deployment efforts.

### **Post-Application Scoring Process**

Remaining applications will be reviewed, scored, deconflicted, and provisionally awarded according to the prioritization process, scoring process, and deconfliction process described in sections 2.4.3 and 2.4.6, respectively.

Uncontested Priority Broadband Projects will first be provisionally awarded. Then, BroadbandOhio will review the robustness of the \$0 commitment offers by reviewing the evidence submitted for the offer demonstrating the feasibility of delivering BEAD-compliant deployment and service within 2 years. If the \$0 commitment offer is upheld by BroadbandOhio, then the provider offering the \$0 commitment will be selected as a default BEAD awardee with \$0 BEAD fund outlay. These providers will enter a binding commitment with BroadbandOhio to complete BEAD-compliant delivery and provide BEAD-compliant service within 2 years of the contract, and should they fail to do so, will owe BroadbandOhio a non-compliance cost equal to the higher value between (i) the total greenfield capital required for deployment to all unserved and underserved locations and CAIs in the proposed project area,<sup>34</sup> or (ii) the total original grant funds requested by the original applicant that was not awarded as a result of the commitment offer. These awarded areas will be de-conflicted from all remaining applications.

Afterwards, applications for Priority Broadband Projects will be scored using the scoring rubric described below. Applications with the highest scores will be provisionally awarded, and providers who have submitted applications in conflicting project areas that did not win will be engaged in the deconfliction process described below. After the deconfliction process for Priority Broadband Projects is run, BroadbandOhio will assess the projected total BEAD outlay accounting only for Priority Broadband Projects. If the projected outlay exceeds BroadbandOhio's BEAD allocation, BroadbandOhio will score, deconflict, and make provisional awards for applications for non-fiber, reliable technologies where the provisionally awarded application exceeds the EHCPL threshold.

## Second Grant Round

If there are any project area units remaining after the first ORBEG-BEAD grant round, BroadbandOhio will determine if another grant round is required, or if the remaining project area units can be addressed through negotiations with providers already offering service in adjacent

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<sup>34</sup> The broadband funding gap is the difference between the actual cost of building the infrastructure for the network and the amount of money the applicant can afford to spend to build the infrastructure for the network and still make a profit. If a location has a positive business case, the broadband funding gap will be calculated as \$0. If a location has a negative business case, the broadband funding gap will be the sum that would bring the negative value to \$0.

areas, or who have won BEAD grants in adjacent areas. If a final round of ORBEG-BEAD is necessary, BroadbandOhio will consider revisions to the EHCPLT to set it as low as possible to enable participation by all technologies, and applications using all fixed, wireless and satellite technologies will be considered. Any areas remaining for Round 2, including “no-bid” PAUs, would have low demonstrated interest by fiber entrants as reflected in the lack of bids in Round 1. Therefore, BroadbandOhio deems it important to have applications of all technologies available for these areas to ensure universal service of the state and will consider adjusting the EHCPLT to enable such participation. Beyond the EHCPLT, BroadbandOhio will also consider additional steps to encourage participation during the subsequent round, which are described below. Both during negotiations and during a potential final grant round, BroadbandOhio will consider further breaking up existing project area units into smaller subdivisions.

### **After Second Grant Round**

If there are any project area units remaining after a second ORBEG-BEAD grant round, Ohio will issue an RFP for the creation of a Public-Private Partnership to provide high-speed broadband service to these areas, which will be operated by the partnering service provider, can leverage state assets (e.g., OARnet, MARCS towers), and will be owned by the state of Ohio and operated by the partnering entities for twenty years. At the conclusion of twenty years, the operators will have the option to purchase the assets from Ohio.

### **Treatment of CAIs**

During the above grant rounds, eligible CAIs in the respective project areas will be optional for prospective subgrantees to cover. If the prospective subgrantee chooses to deploy to the eligible CAIs in the respective project area, they must provide service to all eligible CAIs in the project area. Those subgrantees that can provide 1Gbps symmetrical speeds to these eligible CAIs will be awarded points during the subgrantee scoring process and subsequent funding for reaching those eligible CAIs. For all eligible CAIs remaining without 1Gbps symmetrical service after all unserved and underserved locations are funded, Ohio will run a separate RFP to solicit bids to provide 1Gbps symmetrical service. Should it be determined that there would be no funding

anticipated to remain after serving all unserved and underserved locations in Ohio, CAIs will be descope from the awards.

After all provisional awards are set, BroadbandOhio will do a final review of the selected applicants and their qualification materials to confirm that they sufficiently meet all subgrantee qualification requirements for delivering BEAD-compliant deployment projects. Only those applicants that meet these BEAD-specified qualification requirements will be selected for final awards. Once this final screening is complete, the provisional awardees will be submitted to NTIA for review as part of the BEAD final proposal. Once approved, awards will be made to the winning providers.

### Approach to ensuring a fair, open, and competitive process

The process described above includes the following safeguards to ensure that the subgrantee selection process is fair, open and competitive.

**Safeguards to ensure fairness, including those specifically to protect against collusion, bias, conflicts of interest, and arbitrary decisions:**

- **Safeguards against collusion:** As part of its ORBEG process, BroadbandOhio requires all prospective subgrantees to sign an Authorized Representative Declaration Form, including attestations that all provided information is correct.<sup>35</sup> As part of BEAD application requirements, BroadbandOhio will require all prospective subgrantees to sign an Authorized Representative Declaration Form, which will specifically include an attestation that the prospective subgrantee has not colluded with any entities or persons, neither through public statements nor private communications.
- **Safeguards against bias:** The required qualifications for subgrantees will be widely published so that all potential applicants may review them and consider applying for funds if they meet the requirements. Potential subgrantees' qualifications will be assessed according to the process described in 2.4.11 – 2.4.17 by reviewers who must submit an affidavit attesting that they do not have any conflicts of interest that could introduce bias into the process. In addition, subgrantee qualifications and subgrantee selection criteria are published in this document for public comment. During the public comment period, comments and feedback suggesting additional ways to make

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<sup>35</sup> See, for instance, ORBEG Round 1 application form [here](#).

the process free from bias will be considered.

- **Safeguards against conflicts of interest:** BroadbandOhio will require that all application reviewers submit affidavits to ensure that there are no conflicts of interest, biases, or favoritism in reviewing and scoring applications. BroadbandOhio will additionally require all state employees and contractors involved in the BEAD process to submit an affidavit to ensure that there are no conflicts of interest in overseeing the BEAD process.
- **Safeguards against arbitrary decisions:** BroadbandOhio will define and publish its evaluation and scoring criteria to ensure that all applications are judged in a manner that complies with established decision-making criteria, thereby preventing arbitrary decisions. In addition, records will be retained and submitted to NTIA for further review as part of the Final Proposal.

### Steps to make the subgrantee award process open

To ensure that the process is open, BroadbandOhio will take the following steps regarding public notice to potential subgrantees so that a wide variety of potential applicants may participate.

Public notification regarding the BEAD-funded grant round will commence after NTIA has approved the Initial Proposal and at least 30 days prior to the due date of applications.

Applications will be posted online 30 days prior to the due date, which is consistent with ORBEG procedures for public notices. Public notification will be conducted through the following channels:

- **Information regarding the subgrantee selection process** will be available on the BroadbandOhio website and will include all documentation (e.g., a guidebook, frequently asked questions, applicable submission templates), subgrantee qualifications and accountability measures, scoring information, and timeline for the subgrantee selection process.
- **Press releases** will be shared by the Department of Development and BroadbandOhio to publicize the timeline and direct stakeholders to channels where they can find more information.
- **Notification and promotion** via key channels and stakeholders, including:
- **BroadbandOhio's own channels**, including webpage postings announcing the subgrantee selection process and directing readers to the BroadbandOhio website, emails to the BroadbandOhio Alliance listserv and to the Broadband Working Group (state agency partners), and postings to BroadbandOhio's social media channels. In-person engagement will be conducted at the Broadband Alliance's quarterly meetings, where attendees include statewide stakeholders such as state and local government leaders, representatives from ISPs and ISP associations, and digital

inclusion leaders from CAIs and non-profits.

- **RDIAs and their numerous local channels** with residents, non-profits, and CAIs—similar to those used to engage stakeholders as outlined in the Five-Year Action Plan—to increase awareness via their email list-servs and in-person meetings.
- **Engagement with local government partners**, such as local government leaders, ISPs and ISP associations, non-profits, CAIs, residents, broadband stakeholder alliance groups, state government associations, and others.
- **Engagement** with ISPs and ISP associations, non-profits, CAIs, residents, broadband stakeholder alliance groups, state government associations, and others.
- **Technical assistance**, including public webinars and Q&A sessions, with BroadbandOhio leaders to explain the subgrantee selection process and address any questions prior to launching the process.

Consistent with ORBEG requirements, BroadbandOhio will also post all public record information from each complete application submitted on or before the last day of the application period. The information will be posted on the program website no later than 35 days from the end of the application period.<sup>36</sup>

### Steps to ensure that the subgrantee award process is competitive

To ensure the process is competitive, BroadbandOhio will take the following steps:

1. **Notify the public of the subgrantee process and eligibility requirements.** As described above, BroadbandOhio will conduct statewide and multi-stakeholder marketing of the subgrantee selection process using multiple channels to seek broad participation. Providers who meet the subgrantee qualifications and who agree to abide by the sub-granting accountability procedures (defined in **2.4.11 – 2.4.17** and **2.16.2**) will be eligible to compete.
2. **Use competitively neutral evaluation criteria.** The subgrantee selection criteria are designed to place qualifying potential subgrantees on equal footing and to protect Ohio and its residents from the risks associated with less experienced providers.
3. **Review and assess applications fairly without conflicts of interest, favoritism, and bias.** As described above, application reviewers and scorers will be required to submit affidavits attesting to the lack of conflicts of interest.
4. **Set project area unit (PAU) size that a range of provider sizes can cover.** The number of unserved and underserved locations in project area units ranges from 1 to over a thousand, with over 2,600 of the approximate total of 4,200 PAUs having less than 50

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<sup>36</sup> [Ohio Administrative Code, Rule 122](#)

locations. This range in size of PAUs and the approach that allows providers to submit applications for any subset of PAUs will allow providers of varying sizes to participate in the subgrantee selection process.

5. **Consider public comments related to competitiveness.** The subgrantee procedures will be open for public comment for 30 days, and all comments received will be reviewed and considered.

[\(Req 2.4.2\) Description of how the prioritization and scoring process will be conducted, consistent with the BEAD NOFO requirements on pages 42 – 46.](#)

### Prioritization process

Ohio's subgrantee selection process will prioritize proposals for Priority Broadband Projects that minimize BEAD outlay and include project area units with a high proportion of unserved locations, while balancing the need to incentivize providers to apply for project area units that include underserved locations, which improves the provider's business case. The following steps outline how the process will be conducted in a manner consistent with the BEAD NOFO requirements.

1. **Set project area units that consist of non-overlapping groupings of unserved and underserved locations, and eligible CAIs.** ISPs will be required to serve all unserved and underserved locations within a PAU awarded to them but may choose to serve the set of CAIs in the given PAU, which would help prioritize unserved and underserved locations over CAIs. BroadbandOhio will also reserve the right to descope CAIs in case there is no funding anticipated to remain after serving all unserved and underserved locations.
2. **Make default awards** for uncontested Priority Broadband Projects.
3. **Make default awards** for \$0 Priority Broadband Project commitment offers that have been adjudicated and upheld by BroadbandOhio, as described above, to minimize BEAD outlay.
4. **Apply the scoring rubric** to contested project areas first to Priority Broadband Projects, before considering non-fiber projects (whether contested or uncontested).
5. **Consider non-fiber projects only if:**
  - a. There are project area units that did not receive a Priority Broadband Project proposal, or,
  - b. If non-fiber projects are needed to achieve full coverage, which can be achieved through application of the extremely high cost per location threshold.

As described in Requirements 2.4.1 and 2.4.3, BroadbandOhio will run at most two competitive grant rounds that allow eligible applicants who meet all gating criteria and qualifications to submit applications for any subset of the project area units defined by BroadbandOhio. If funds remain after making provisional awards to subgrantees for all unserved and underserved locations, and there are remaining CAIs without 1Gbps service, BroadbandOhio will conduct an RFP process to identify subgrantees that will be awarded a grant to pass eligible CAIs. This process is also defined below.

Within the competitive grant process, BroadbandOhio will prioritize Priority Broadband Projects from applicants that satisfy all subgrantee qualifications. If only one qualifying Priority Broadband Project is proposed for a given project area, and its average cost per location does not exceed BroadbandOhio's Extremely High Cost Per Location Threshold (EHCPLT), that proposal will be the default winner.

If multiple Priority Broadband Projects are proposed for a given project area, and the applicants satisfy all other subgrantee requirements, BroadbandOhio will first prioritize \$0 Priority Broadband Project commitment offers that are adjudicated as valid by BroadbandOhio. After \$0 commitment offers have been prioritized, BroadbandOhio will compare proposals using the scoring rubric outlined below.

If no qualifying Priority Broadband Projects are proposed for a given project area, all proposals for other last-mile broadband deployment projects will be assessed using the scoring rubric outlined below.

If it is determined that Ohio will not reach all unserved or underserved locations with its given BEAD funding amount, BroadbandOhio will first prioritize awarding provisional awards for persistent poverty counties as defined by the NOFO (Athens county) through the process described in 2.4.10 below, and in project areas with a high proportion of unserved locations.<sup>37</sup>

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<sup>37</sup> For the purposes of this requirement, high poverty areas are areas in which the percentage of individuals with a household income that is at or below 150 percent of the poverty line applicable to a family of the size involved (as determined under

BroadbandOhio will also reserve the right to descope underserved locations and CAIs if it is estimated that all unserved and underserved locations cannot be reached through the BEAD allocation.

### Scoring process

After identifying default winners, the scoring criteria below will be used to decide among competing proposals, first for Priority Broadband Projects, then subsequently for other last-mile broadband deployment projects, in accordance with the BEAD NOFO, pages 42 - 46.

**Priority criteria (75% of total subgrantee scoring weight)** include the following:

**Minimum BEAD outlay (550 points, 55% of total subgrantee scoring weight).** BroadbandOhio will evaluate a prospective project's total BEAD funding required to complete the project, accounting for both total projected cost and the prospective subgrantee's proposed match (which must—absent a waiver—cover no less than 25% of the project cost), with the specific points or credits awarded increasing as the BEAD outlay decreases. To ensure that the requested BEAD outlay is efficiently applied toward meeting BEAD objectives, the following scoring sub-factors will be used:

**Broadband service cost (150 points, 15% of total subgrantee scoring weight).**

BroadbandOhio will award 15% of the total scoring weight calculated as follows.

Of a maximum of 75 points, the number of points equal to the application's total BEAD outlay percentile multiplied by 7.5% will be determined as following:

- Determining, for each individual application in a given project area, the total BEAD outlay per eligible address in the application by calculating the quotient of the amount of program grant funds requested for the application divided by the number of eligible addresses in the application.
- Ranking, from lowest to highest cost, all individual applications by total BEAD outlay per eligible address.

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Section 673(2) of the Community Services Block Grant Act (42 U.S.C. § 9902(2)) is higher than the national percentage of such individuals. Persistent poverty counties are counties that have had poverty rates of 20 percent or greater for at least 30 years as calculated by the Economic Research Service in the Department of Agriculture.

- Assigning each application a percentile based on its total BEAD outlay per eligible address relative to all other applications' total BEAD outlay per eligible address.
- For each project area unit, there will be a reference cost defined as the total estimated greenfield fiber NPV subsidy cost to reach all eligible locations as provided by NTIA to Eligible Entities, as a means of ensuring efficient BEAD outlay. Applications above the specified reference cost upper bound in the given project area will be given 0 points.
- Applications for a given project area will be percentiled against each other and given a score for the given project area.

Of a maximum of 75 points, the number of points equal to one half of the application's percentage of eligible project funding from all sources other than the BEAD program beyond the required 25% match. Only cash matches beyond the 25% will be considered. For example, for a project that provides a match totaling 25% of total project funds beyond the 25% match already required, the percentage will be calculated as  $25\% / 75\% = 33.3\%$ , and final score for this category will be  $33.3\% * 0.5 \text{ points} = 17 \text{ points}$ .

**Share of unserved and underserved locations within project area (300 points, 30% of total subgrantee scoring weight).** BroadbandOhio will award 30% of the total scoring weight calculated as the sum of the following:

- The point value determined by multiplying 300 points times the percentage of passes in unserved BSLs of the application among all eligible BSLs in the given application, and
- One half of the point value determined by multiplying 300 points times the percentage of passes in underserved BSLs of the application among all eligible BSLs in the given application.

BroadbandOhio expects that this measure will help to ensure that the BEAD outlay prioritizes reaching unserved locations as efficiently as possible. BroadbandOhio is adopting project area units to ensure apples-to-apples comparison of applications in terms of their competitiveness. As such, each project area unit will have its own unique mix of unserved and underserved location count. By encouraging bids in project areas with a higher share of unserved locations upfront, BroadbandOhio aims to lessen the need for an additional round and/or greater inducements to solicit bids for these locations, thereby minimizing BEAD outlay.

**Number of eligible addresses passed (100 points, 10% of total subgrantee scoring weight).**

BroadbandOhio will award 10% of the total scoring weight, as calculated per the following:

- 10 points awarded for the number of eligible locations equal to 500 or more, but less than 1,000
- 20 points awarded for the number of eligible locations equal to 1,000 or more, but less than 1,500
- 30 points awarded for the number of eligible locations equal to 1,500 or more, but less than 2,000
- 40 points awarded for the number of eligible locations equal to 2,000 or more, but less than 2,500
- 50 points awarded for the number of eligible locations equal to 2,500 or more, but less than 3,000
- 60 points awarded for the number of eligible locations equal to 3,000 or more, but less than 3,500
- 70 points awarded for the number of eligible locations equal to 3,500 or more, but less than 4,000
- 80 points awarded for the number of eligible locations equal to 4,000 or more, but less than 4,500
- 90 points awarded for the number of eligible locations equal to 4,500 or more, but less than 5,000
- 100 points awarded for the number of eligible locations equal to 5,000 or more

BroadbandOhio expects that this measure will encourage economies of scale by prioritizing projects with larger project areas, which will in turn help to minimize BEAD outlay.

**Affordability (100 points, 10% of total subgrantee scoring weight).** BroadbandOhio will evaluate the prospective subgrantee's commitment to provide the most affordable total price to the customer for 1 Gbps/1 Gbps service in the project area for priority broadband projects, or 100/20 Mbps service in the proposed service area for projects that are not priority broadband projects. Specifically, all applicants' proposed plan rate for the respective speeds above will be ranked against the statewide, weighted average rate proposed by all BEAD applicants, and applications will receive a score based on their rank.

In order to implement the above scoring process, BroadbandOhio will require, as part of the application content, a customer service rate table from each applicant that specifies the committed rate for a plan in line with the speeds listed above. BroadbandOhio will use that information to calculate a statewide average price among BEAD prospective subgrantees for

plans with the commensurate speed specifications. Specifically, the rates provided by applicants will be leveraged to calculate a weighted statewide average by proportion of all eligible BSLs that each application represents. Then, each application's commensurate rate will be ranked in comparison to the calculated statewide average plan rate above, by calculating each application's count of standard deviations away from the statewide average rate, and percentiling the deviation across all applications. The lowest cost will receive the highest score according to the scoring criteria.

**Fair labor practices (100 points, 10% of total subgrantee scoring weight).** Per BEAD requirements, BroadbandOhio will prioritize projects based on a prospective subgrantee's demonstrated record of compliance with federal labor and employment laws, as well as their plans to continue that compliance.

As a subgrantee qualification, all awarded subgrantees would be required to participate in the Broadband and 5G Sector Partnership, a key component of the "Strengthening Ohio's Broadband & 5G Workforce" strategy.

Additionally, subgrantees will be given points for this criterion per their binding commitment to hire apprenticeship program participants, either through the "Strengthening Ohio's Broadband & 5G Workforce" strategy specifically or through another qualified apprenticeship program, with each percentage point of apprentice program participants as share of the subgrantee's project workforce yielding one point (e.g., if a prospective subgrantee makes a binding commitment to hire 5% of its project workforce from apprenticeship program participants, the subgrantee will be granted 5 points out of 100 total points in this criteria). This binding commitment will be enforced by tying the committed hiring levels to funding reimbursement, where subgrantees will define applicable hiring goals as part of their project milestones, and any unmet percentage in hiring goals will be proportionally deducted from the funding to be reimbursed (e.g., if a milestone defined that 5% of its workforce would be hired from apprenticeships, but only hired 4% of its workforce, 80% (4% / 5%) of the funding will be disbursed for that particular milestone). All Strategy participants will hold industry-recognized credentials, which will help ensure strong labor standards and protections of the project workforce via the use of an appropriately skilled and credentialed workforce. Further details can be found in **Workforce Readiness (2.8.1)**.

Additionally, as part of its subgrantee qualifications, and with the aim of meeting BEAD's mandate to ensure that subgrantees, contractors, and subcontractors use strong labor standards and protections, BroadbandOhio will require all prospective subgrantees to submit:

- Information regarding labor standards and protection. As part of BEAD's Labor Standard and Protection requirement (2.7.1), BroadbandOhio will require the following information:
  - Record of past compliance with federal labor and employment laws, which must include information on these entities' compliance with federal labor and employment laws on broadband deployment projects in the last five years.
  - Certification from an officer/director-level employee (or equivalent) of the prospective subgrantee evidencing that the prospective subgrantee, as well as all contractors and subcontractors, has consistently complied with federal labor and employment laws.
  - Written confirmation that the prospective subgrantee has disclosed any instances in which it or its contractors or subcontractors have been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws within the preceding five years.
- Plans for ensuring compliance with federal labor and employment laws, which must include the following:
  - Information on applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction of the broadband network.
  - How the subgrantee will establish workplace safety committees that are authorized to raise health and safety concerns related to the delivery of deployment projects and with whom management may meet upon reasonable request.
- A record and explanation of any Occupational Safety and Health Administration (OSHA) violations within the past five years preceding the application date
- A record and explanation of any de-certification from procurement by any U.S. states within the past five years preceding the application date

Further details on BroadbandOhio's requirements related to Labor Standards and Protections are provided in **2.7.1**.

**Secondary criteria (25% of total subgrantee scoring weight) include the following:**

**Speed to deployment (25 points, 2.5% of total subgrantee scoring weight).** BroadbandOhio will prioritize prospective subgrantees' binding commitment to provide service by an earlier date, subject to contractual penalties to BroadbandOhio. Specifically:

- 13 points will be awarded to those subgrantees promising deployment not later than 4 years after the date on which the subgrantee receives the subgrant from BroadbandOhio;
- 18 points for those promising deployment not later than 3 years;
- 22 points for those promising deployment not later than 2 years; and
- 25 points for those promising deployment not later than 1 year.

**Speed of network (50 points, 5% of total subgrantee scoring weight).** BroadbandOhio will prioritize projects with greater speeds, with weights assigned in the following manner:

- 6 points for broadband speeds that are 100 Mbps downstream or greater and 20 Mbps or greater upstream, but less than 250 Mbps downstream and 50 Mbps upstream
- 13 points for broadband speeds that are 250 Mbps or greater downstream and 50 Mbps upstream, but less than 500 Mbps downstream and 100 Mbps upstream
- 25 points for broadband speeds that are 500 Mbps or greater downstream and 100 Mbps or greater upstream, but less than 750 Mbps downstream and 250 Mbps upstream
- 31 points for broadband speeds that are 750 Mbps or greater downstream and 250 Mbps or greater upstream, but less than 1Gbps downstream and 500 Mbps upstream
- 36 points for broadband speeds that are 1Gbps or greater downstream and 500 Mbps or greater upstream, but less than 1Gbps upstream
- 50 points for broadband speeds that are 1Gbps or greater downstream and 1Gbps or greater upstream

**Technical capabilities (50 points, 5% of total subgrantee scoring weight).** BroadbandOhio will prioritize projects with greater scalability (i.e., ability to reach 1Gbps symmetrical speed) and latency (at most 100 milliseconds of latency), with weights assigned in the following manner:

- 50 points for end-to-end fiber projects
- 40 points for scalable, non-fiber technologies meeting latency requirements (e.g., cable, HFC; licensed FWA technologies designed for scalability)
- 30 points for other reliable broadband technologies that have limited ability to meet latency requirements (e.g., licensed FWA)
- 20 points for non-reliable broadband technologies (e.g., unlicensed FWA, satellite)

**Local support for application (25 points, 2.5% of total subgrantee scoring weight).**

BroadbandOhio will prioritize projects with local support, assigning a maximum 2.5% out of a total scoring weight in the following manner:

- 13 points if the application includes a resolution of support from the board of county commissioners in the county where the eligible project is located.
  - If an application's eligible project spans multiple counties, of the total 13 points for resolutions adopted by boards of county commissioners, the number of points awarded pro rata, based on the percentage of eligible addresses for the project in each affected county for which the board of county commissioners adopted a resolution of support.
- 7 points if the application includes a letter of support from a board of township's trustees, a village, or a municipal corporation.
  - If an application's eligible project spans multiple townships, villages, and municipal corporations, of the total 7 points for letters from boards of township trustees, villages, or municipal corporations, the number of points awarded pro rata according to the percentage of eligible addresses for the project in each affected village, municipal corporation, and unincorporated area of the township for which a board of township trustees, village, or municipal corporation submitted a letter of support.
- 5 points for letters of support from a local economic development agency or a chamber of commerce that advocates for an area of the eligible project with the majority of eligible addresses in the application.

**General experience and technical/financial ability (38 points, 3.8% of total subgrantee scoring weight).** BroadbandOhio will prioritize subgrantees with demonstrated general experience and technical and financial ability as judged by the Broadband Expansion Program Authority, which may award partial points for scores.

**Years providing service in Ohio (37 points, 3.7% of total subgrantee scoring weight).**

BroadbandOhio will evaluate a provider's experience by the number of years in which it has provided wireline broadband service within Ohio. The evaluation will be conducted in the following manner:

- 5 points for 4 years, but less than 5 years of experience
- 10 points for 5 years, but less than 6 years of experience
- 15 points for 6 years, but less than 7 years of experience
- 20 points for 7 years, but less than 8 years of experience

- 25 points for 8 years, but less than 9 years of experience
- 30 points for 9 years, but less than 10 years of experience
- 37 points for 10 or more years of experience.

**1Gbps symmetrical speed to CAIs (25 points, 2.5% of total weight).** For those applicants that commit to providing 1Gbps symmetrical service to all eligible CAIs in their proposed project area(s), BroadbandOhio will award 25 points.

[\(Req 2.4.2.1\) Attachment: Scoring rubric to be used in the subgrantee selection process for deployment projects.](#)

The scoring rubric to be used in the subgrantee selection process for broadband deployment projects is provided in Attachment [BEAD Initial Proposal\_Volume II\_Subgrantee Selection Scoring Rubric.xlsx]. Below includes a summary table of the scoring criteria.

Scoring Criteria, Weight, and Points	Determination
<b>Primary Criteria - 75% total</b>	
<p><b>Minimal BEAD Outlay: Broadband Service Cost.</b> Calculated as combination of:</p> <p>(A) Of a maximum of 75 points, the number of points equal to the application's total BEAD outlay percentile, calculated as described in Determination column.</p> <p>(B) Of a maximum of 75 points, the number of points corresponding to proposed match beyond 25% requirement. Only cash match beyond the 25% will be considered for scoring purposes.</p> <p><b>Respective Weight and Points:</b> 15% (150 points)</p>	<p><b>For total BEAD outlay sub-criterion (75 points):</b></p> <ul style="list-style-type: none"> <li>• Determining, for each individual application in a given project area, the total BEAD outlay per eligible address in the application by calculating the quotient of the amount of program grant funds requested for the application divided by the number of eligible addresses in the application.</li> <li>• Ranking, from lowest to highest cost, all individual applications by total BEAD outlay per eligible address.</li> <li>• Assigning each application a percentile based on its total BEAD outlay per eligible address relative to all other applications' total BEAD outlay per eligible address.</li> <li>• For each project area unit, applications above the specified reference cost upper bound in the given project area will be given 0 points.</li> <li>• Applications for a given project area will be percentiled against each other and given a score for the given project area.</li> </ul> <p><b>For match sub-criterion (75 points):</b> Score will be equal to one half of the application's percentage of eligible project funding from all sources other than the BEAD program beyond the required 25% match (accounting for cash match only).</p>

Scoring Criteria, Weight, and Points	Determination
<p><b>Minimal BEAD Outlay: Share of unserved and underserved locations within project area.</b> BroadbandOhio will award 30% of the total scoring weight calculated as the sum of what is described in Determination column, (A) and (B).</p> <p><b>Respective Weight and Points:</b> 30% (300 points)</p>	<p>(A) The point value determined by multiplying 300 points times the percentage of passes in <b>unserved</b> areas of the application among all eligible BSLs in the application</p> <p>(B) One half of the point value determined by multiplying 300 points times the percentage of passes in <b>underserved</b> areas of the application among all eligible BSLs in the application</p>
<p><b>Minimal BEAD Outlay: Number of eligible addresses passed.</b> BroadbandOhio will award 10% of the total scoring weight based on number of eligible locations to be served, as calculated per the process shown in Determination column.</p> <p><b>Respective Weight and Points:</b> 10% (100 points)</p>	<ul style="list-style-type: none"> <li>• <b>10 points</b> awarded for the number of eligible locations between 500-999</li> <li>• <b>20 points</b> awarded for the number of eligible locations between 1,000-1,499</li> <li>• <b>30 points</b> awarded for the number of eligible locations between 1,500-1,999</li> <li>• <b>40 points</b> awarded for the number of eligible locations between 2,000-2,499</li> <li>• <b>50 points</b> awarded for the number of eligible locations between 2,500-2,999</li> <li>• <b>60 points</b> awarded for the number of eligible locations between 3,000-3,499</li> <li>• <b>70 points</b> awarded for the number of eligible locations between 3,500-3,999</li> <li>• <b>80 points</b> awarded for the number of eligible locations between 4,000-4,499</li> <li>• <b>90 points</b> awarded for the number of eligible locations between 4,500-4,999</li> <li>• <b>100 points</b> awarded for the number of eligible locations equal to 5,000 or more</li> </ul>

Scoring Criteria, Weight, and Points	Determination
<p><b>Affordability.</b> BroadbandOhio will evaluate the prospective subgrantee’s commitment to provide the most affordable total price to the customer for 1 Gbps/1 Gbps service in the project area for priority broadband projects, or 100/20 Mbps service in the proposed service area for projects that are not priority broadband projects.</p> <p><b>Respective Weight and Points:</b> 10% (100 points)</p>	<p>Calculate a weighted statewide average plan rate among BEAD prospective subgrantees</p> <p>Calculate each application’s rate’s count of standard deviations away from the statewide average rate above</p> <p>Rank each applicant’s rate against all other applicants by percentiling the standard deviation count across all applications</p> <p>The lowest cost will receive the highest score according to the scoring criteria.</p>
<p><b>Fair Labor Practices.</b> BroadbandOhio will prioritize projects based on a prospective subgrantee’s demonstrated record of compliance with federal labor and employment laws, as well as their plans to continue that compliance.</p> <p><b>Respective Weight and Points:</b> 10% (100 points)</p>	<p>Points given per prospective subgrantee’s <b>binding commitment to hire qualified apprentice program participants</b>, with each percentage point of apprentices hired as share of subgrantee workforce yielding one point.</p>
<p><b>Secondary Criteria – 12.5% (25% when combined with Additional Prioritization Factors)</b></p>	
<p><b>Speed to deployment.</b> BroadbandOhio will prioritize prospective subgrantees’ binding commitment to provide service by an earlier date, subject to contractual penalties to BroadbandOhio.</p>	<ul style="list-style-type: none"> <li>• <b>13 points</b> will be awarded to those subgrantees promising deployment not later than 4 years after the date on which the subgrantee receives the subgrant from BroadbandOhio;</li> <li>• <b>18 points</b> for those promising deployment not later than 3 years;</li> <li>• <b>22 points</b> for those promising deployment not later than 2 years; and</li> <li>• <b>25 points</b> for those promising deployment not later than 1 year.</li> </ul>

Scoring Criteria, Weight, and Points	Determination
Respective Weight and Points: 2.5% (25 points)	
<p><b>Speed of network.</b> BroadbandOhio will prioritize projects with greater speeds.</p> <p>Respective Weight and Points: 5% (50 points)</p>	<ul style="list-style-type: none"> <li>• <b>6 points</b> for broadband speeds that are 100/20 Mbps or greater, but less than 250/50 Mbps</li> <li>• <b>13 points</b> for broadband speeds that are 250/50 Mbps, but less than 500 /100 Mbps</li> <li>• <b>25 points</b> for broadband speeds that are 500/100 Mbps, but less than 750/250 Mbps</li> <li>• <b>31 points</b> for broadband speeds that are 750/250 Mbps, but less than 1Gbps/500 Mbps</li> <li>• <b>36 points</b> for broadband speeds that are 1Gbps/500 Mbps, but less than 1Gbps symmetrical</li> <li>• <b>50 points</b> for broadband speeds that are 1Gbps symmetrical or greater</li> </ul>
<p><b>Technical Capabilities.</b> BroadbandOhio will prioritize projects with greater scalability (i.e., ability to reach 1Gbps symmetrical speed) and latency (at most 100 milliseconds of latency).</p> <p>Respective Weight and Points: 5% (50 points)</p>	<ul style="list-style-type: none"> <li>• <b>50 points</b> for end-to-end fiber projects</li> <li>• <b>40 points</b> for scalable, non-fiber technologies meeting latency requirements (e.g., cable, HFC; licensed FWA technologies designed for scalability)</li> <li>• <b>30 points</b> for other reliable broadband technologies that have limited ability to meet latency requirements (e.g., licensed FWA)</li> <li>• <b>20 points</b> for non-reliable broadband technologies (e.g., unlicensed FWA, satellite)</li> </ul>
<b>Additional Prioritization Factors – 12.5% (25% combined with Secondary Criteria)</b>	
<p><b>Local Support for application.</b> BroadbandOhio will prioritize projects with local support, assigning a maximum 2.5% out of a total scoring weight.</p>	<ul style="list-style-type: none"> <li>• <b>13 points</b> if the application includes a resolution of support from the board of county commissioners in the county where the eligible project is located.</li> <li>• <b>7 points</b> if the application includes a letter of support from a board of township’s trustees, a village, or a municipal corporation.</li> </ul>

Scoring Criteria, Weight, and Points	Determination
<p><b>Respective Weight and Points:</b> 2.5% (25 points)</p>	<ul style="list-style-type: none"> <li>• <b>5 points</b> for letters of support from a local economic development agency or a chamber of commerce that advocates for an area of the eligible project with the majority of eligible addresses in the application.</li> </ul>
<p><b>General experience and technical/financial ability.</b> BroadbandOhio will prioritize subgrantees with demonstrated general experience and technical and financial ability.</p> <p><b>Respective Weight and Points:</b> 3.8% (38 points)</p>	<p>Judged by the Broadband Expansion Program Authority, which may award partial points.</p>
<p><b>Years providing service in Ohio.</b> BroadbandOhio will evaluate a provider's experience by the number of years in which it has provided wireline broadband service within Ohio.</p> <p><b>Respective Weight and Points:</b> 3.7% (37 points)</p>	<ul style="list-style-type: none"> <li>• <b>5 points</b> for 4-5 years of experience</li> <li>• <b>10 points</b> for 5-6 years of experience</li> <li>• <b>15 points</b> for 6-7 years of experience</li> <li>• <b>20 points</b> for 7-8 years of experience</li> <li>• <b>25 points</b> for 8-9 years of experience</li> <li>• <b>30 points</b> for 9-10 years of experience</li> <li>• <b>37 points</b> for 10 or more years of experience</li> </ul>
<p><b>1Gbps symmetrical speed to CAIs.</b> Based on applicants' commitment to provide 1Gbps symmetrical service to all eligible CAIs in their proposed project area(s).</p> <p><b>Respective Weight and Points:</b> 2.5% (25 points)</p>	<ul style="list-style-type: none"> <li>• <b>25 points</b> for applicants that commit to providing 1Gbps symmetrical service to their CAIs</li> </ul>

(Req 2.4.3) Description of how the proposed subgrantee selection process will prioritize Unserved Service Projects to ensure complete coverage of all unserved locations before prioritizing Underserved Service Projects, followed by eligible CAIs.

The proposed subgrantee selection process includes the following components to ensure complete coverage of all unserved locations before underserved service projects, followed by eligible CAIs, are prioritized:

- **The design of project area units.** Project area units in the BEAD-funded grant round(s) in Ohio will comprise groupings of unserved and underserved locations, and eligible CAIs. Unserved and underserved locations grouped together are more likely to be included in a project application than if providers submit applications for individual locations. CAIs will be included but optional, further prioritizing unserved and underserved locations over eligible CAIs (additional details below).
- **Points for unserved locations in the scoring rubric.** The scoring criteria detailed above award 30% of total scoring weight to projects based on their share of unserved and underserved locations, wherein unserved locations are given twice the weight of underserved service projects. This approach encourages applicants to incorporate project area units with a high proportion of unserved locations into their applications.
- **Multiple grant rounds.** The potential second grant round of BEAD has been designed to provide another opportunity to ensure that all unserved locations are included in funding applications. BroadbandOhio anticipates holding conversations to understand the barriers preventing providers from covering any remaining unserved locations and will likely take steps to address those barriers ahead of, and as part of, the second grant round. If there are unserved or underserved locations remaining after two grant rounds, then coverage will be provided through a public-private partnership.

If it is determined that a second grant round is necessary due to inability to reach all locations in the first round, BroadbandOhio will reserve the right to adjust which locations receive provisional awards in the first round, such as by taking the following approaches:

- Lowering the EHCPLT to enable consideration of applications using alternative, lower cost technologies. If a second and final round of ORBEG-BEAD is necessary, BroadbandOhio will consider revisions to the EHCPLT to enable the consideration of applications using alternative technologies. Any areas remaining for the second and final grant round, including “no-bid” PAUs, would have low demonstrated interest by fiber providers as reflected in the lack of bids in the first round. Consequently, BroadbandOhio deems it important to have applications from all eligible providers

and any viable technology available for these areas to ensure universal service of the state. Beyond the EHCPLT, BroadbandOhio will also consider additional steps to encourage participation during the subsequent round, which are described in other sections of this document.

- Move project area units to the second round if it is deemed to have a sufficiently high share of underserved BSLs, to prioritize those project area units with a greater share of unserved BSLs
- Descope underserved BSLs and/or CAIs within a given project area unit that is awarded to a Round 1 subgrantee, and make them available for Round 2
- If it is determined that Ohio will not reach all unserved or underserved locations within its BEAD allocation, BroadbandOhio will first prioritize awarding provisional awards for persistent poverty counties as defined by the NOFO (Athens county) through the process described in 2.4.10 below<sup>38</sup>

BroadbandOhio believes that the above rights will help ensure unserved areas are reached first before underserved BSLs, and those areas in persistent poverty counties.

BroadbandOhio will additionally leverage other strategies to maximize participation in the second round, which is described in the sections below.

- **Optional inclusion of eligible CAIs in PAUs, followed by separate RFP process for eligible CAIs.** Eligible CAIs will be included in PAUs as optional for prospective subgrantees. Once there is funding remaining and confirmed that there are outstanding CAIs needing deployment, funding for CAIs will be sub-granted through an RFP process that is separate from unserved and underserved BSLs. The process will be enabled by funds that remain after the BEAD-funded ORBEG round. Maintaining CAIs as optional during the first 2 rounds and having separate subsequent application processes will ensure that unserved and underserved BSLs are prioritized ahead of eligible CAIs, in accordance with BEAD requirements.

In the event that there are unserved locations that do not have a bid, BroadbandOhio will either leverage direct negotiations with providers, or pursue a public-private partnership to reach all unserved locations. Details on this approach can be found in 2.4.7.

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<sup>38</sup> For the purposes of this requirement, high poverty areas are areas in which the percentage of individuals with a household income that is at or below 150 percent of the poverty line applicable to a family of the size involved (as determined under Section 673(2) of the Community Services Block Grant Act (42 U.S.C. § 9902(2)) is higher than the national percentage of such individuals. Persistent poverty counties are counties that have had poverty rates of 20 percent or greater for at least 30 years as calculated by the Economic Research Service in the Department of Agriculture.

(Req 2.4.4) Rationale for the use of BEAD funds to prioritize non-deployment projects prior to, or in lieu of, the deployment of services to eligible CAIs.

BroadbandOhio does not plan to use BEAD funds for non-deployment projects prior to, or in lieu of, the deployment of services of eligible CAIs.

(Req 2.4.5) Description of how Broadband Ohio will communicate the requirements of Environmental and Historic Preservation (EHP) and the Build America, Buy America Act (BABA) to prospective subgrantees, and how EHP and BABA requirements will be incorporated into the subgrantee selection process.

BroadbandOhio will communicate EHP and BABA requirements to prospective grantees and incorporate them into the subgrantee selection process as described below.

#### **Incorporation of Environmental and Historic Preservation (EHP) requirements:**

**Upfront communication with prospective subgrantees regarding EHP requirements by NTIA.** As part of its technical assistance process, BroadbandOhio will ensure that prospective subgrantees are aware of EHP requirements by including them in relevant materials outlining the subgrantee process and requirements.

**Upfront project information collection.** As part of the technical capability requirement, BroadbandOhio will require subgrantees to provide a network design, diagram, project costs, build-out timeline, and milestones for project implementation, as well as a capital investment schedule showing complete build-out and initiation of service within four years of the date on which the entity receives the subgrant.

For those parts of the project that may be subject to EHP review, BroadbandOhio will require that the project description include a narrative describing potential aspects of the project, including the following items to ensure that relevant information is collected:

- A description of **what** the part of the project subject to EHP review is (e.g., construction of a 150-foot monopole communication tower), including a description of the activities that

will take place, the location and duration of those activities, and the equipment that will be used.

Prospective subgrantees will be required to go beyond simply state the activity, such as “replace an existing utility pole,” and will instead be required to describe activities in sufficient detail so that the effects of the activity on the surrounding environment can be clearly understood. Questions that need to be addressed may include but are not limited to:

- How will the existing pole be removed?
- How will the removed pole be managed or disposed of?
- What equipment will be needed to install the replacement?
- How long will it take to complete the replacement?
- Besides digging a hole, will there be any other ground disturbance associated with the replacement?

This description will serve as the basis for understanding potential interactions with the surrounding environment. Graphics, pictures, and tables can be useful visual tools in conveying the necessary understanding of what is being proposed. The Impacts of the proposed action will need to be discussed.

- A description of **where** the project is proposed to be (e.g., at address level) and/or a detailed outline of the route the project will use.
- A **physical description of the site and surrounding area** (e.g., developed land versus open space; adjacent natural resources, such as rivers, wetlands, or forests; and any protected lands). This description must include site and aerial photographs (e.g., Google Earth or Google Maps images) and indicate whether the project entails construction and/or ground-disturbing activities.
- A description of **how** the project will be implemented (e.g., requiring one acre of ground disturbance at an approximate depth of five feet, and the installation of a concrete pad, an equipment shed, and an emergency generator with a 1,000-gallon above-ground fuel storage tank).
- **Additional supporting material**, including but not limited to:
  - Ground-level and aerial photos of the proposed project area and project plan drawings
  - A floodplain map from the Federal Emergency Management Agency (FEMA) Map Service Center with the project overlain to show whether and where the project falls into a flood zone

- A wetlands map from the U.S. Fish and Wildlife Service’s (USFWS) National Wetlands Inventory with the project overlain to show whether the project will impact wetlands or waterways, including buffer zones
- Initial consultation with State Historic Preservation Officers (SHPO), including a list of any historic or archaeological resources within the vicinity of the construction activities
- Initial Consultation with the USFWS to determine whether there are threatened or endangered species or critical habitat in the vicinity of the project.

Subgrantees will also be required to budget EHP compliance-related tasks into the project timeline and milestones.

As part of the application packet, subgrantees must submit a description of anticipated or preliminary government authorizations, permits, and other approvals required in connection with the project, as well as an estimated timetable for acquiring such approvals.<sup>39</sup> As part of this requirement, subgrantees will be required to include any permits relevant to EHP compliance to confirm that they are considering any permitting necessary for compliance and budgeting sufficient time to obtain any identified, applicable permits.

BroadbandOhio will consult the NTIA about any additional measures that must be taken to ensure EHP compliance and will update the above measures as needed for compliance.

### **Incorporation of Build America, Buy America Act (BABA) Requirements**

To meet BABA requirements, BroadbandOhio will take the following actions during the subgrantee process:

- **Communicate upfront with prospective subgrantees regarding BABA requirements by the NTIA.** As part of its technical assistance process, BroadbandOhio will ensure that prospective subgrantees are aware of BABA requirements by including it in relevant materials outlining the subgrantee process and requirements. BroadbandOhio will also

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<sup>39</sup> Ohio House Bill 33, Sec. 122.4020(A)(14).

include in the BABA materials any limited waivers issued by the NTIA so that prospective subgrantees are aware of the terms of available waivers.<sup>40</sup>

- **Request certification from prospective subgrantees to comply with BABA requirements.** BroadbandOhio will require all subgrant recipients to certify that they will comply with BABA requirements, subject to any limited waivers issued by the NTIA. BroadbandOhio will also require all subgrant recipients to clearly designate all materials planned for their proposed BEAD projects into the categories outlined by the Office of Management and Budget.

BroadbandOhio will consult additional NTIA guidance on the topic to ensure BABA compliance and will update the above measures as needed for compliance.

**(Req 2.4.6) Description of how BroadbandOhio will define the project areas for which they will solicit proposals from prospective subgrantees and indicate whether the mechanism for “de-conflicting” overlapping proposals will allow for equal comparisons of competing proposals.**

#### **How Broadband Ohio will define project areas**

BroadbandOhio will define a project area unit (PAU) as a collection of individual unserved and underserved locations and eligible CAIs within a specific geographic boundary. The set of project area units for the BEAD-funded grant round(s) will be a set of non-overlapping project area units. Census block groups will serve as the geographic boundary that will be used to put together groups of unserved and underserved locations and eligible CAIs. It is currently estimated that there will be approximately 4,210 census block groups in Ohio that would contain unserved and/or underserved broadband serviceable locations, accounting for de-duplications and modifications (eligible CAIs to be accounted for at a later date).

Prospective subgrantees will be able to apply for any subset of project area units within the BEAD-funded grant round(s) (i.e., providers will be able to define custom project areas by

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<sup>40</sup> See, for instance, the proposed BABA waiver for BEAD, which can be found [here](#).

selecting any subset of project area units to deploy in). PAUs will therefore serve as an “application unit,” where, given the distribution of eligible BSLs in Ohio, each PAU will have a mix of BEAD-eligible, unserved and underserved BSL(s) and eligible CAIs.

### Resolving conflict in overlapping proposals

Following the approach defined in the Ohio Administrative Code, Rule 122:30-1-04 (E)(1), where two or more applications submitted both propose to serve the same project area unit(s), the highest-scoring application will be deemed the preliminary winner. The applicant(s) that are not awarded a grant for the conflicting project area units must remove the intersecting project areas from their application, and may further revise their applications in the following ways:

- The applicant may revise the cost of the application consistent with the removal of the intersecting project area units;
- The applicant may withdraw the entire application.

Any change to the application will require that the application be rescored, and the “de-conflicting” process will be continued for any remaining overlaps.<sup>41</sup>

[\(Req 2.4.7\) If no proposals to serve a location or group of locations that are unserved, underserved, or a combination of both are received, description of how BroadbandOhio will engage with prospective subgrantees in subsequent funding rounds to find providers willing to expand their existing or proposed service areas, or other actions that BroadbandOhio will take to ensure universal coverage.](#)

To ensure that all eligible locations receive a bid, BroadbandOhio will take the following measures.

- **BroadbandOhio may engage with prospective subgrantees** to understand barriers to buildout in the remaining PAUs. BroadbandOhio may consider methods to address those

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<sup>41</sup> [Ohio Administrative Code, Rule 122](#)

barriers, which could include support for obtaining permitting, subsidies for specific costs, or other means.

- **BroadbandOhio may consider breaking up project area units into smaller subdivisions,** if that is raised as a barrier in the engagement described in Point 1 above.
- **BroadbandOhio may consider adjustments to the reference cost level** to highlight BroadbandOhio’s consideration of providing higher subsidies.
- **BroadbandOhio may consider lowering the EHCPLT to enable driving toward universal coverage via the consideration of applications using alternative, lower cost technologies.** If a second and final round of ORBEG-BEAD is necessary, BroadbandOhio will consider revisions to the EHCPLT to enable consideration of applications using lower cost, alternative technologies (e.g., all fixed wired, fixed wireless and satellite technologies). Any areas remaining for the second and final grant round, including “no-bid” PAUs, would have low demonstrated interest by fiber providers as reflected in the lack of bids in the first round. Consequently, BroadbandOhio deems it important to have applications of all technologies available for these areas to ensure universal service in the state. Beyond the EHCPLT, BroadbandOhio will also consider additional steps to encourage participation during the subsequent round, as described here.
- **BroadbandOhio will consider creating a state-funded, public-private partnership with local provider(s)** to offer high-speed internet service to unserved locations. If unserved locations remain after completion of four ORBEG grant rounds (the first concluded in 2022, the second upcoming leveraging CPF funds, and the 2 rounds for BEAD funds outlined above), then the process will have identified a market failure that Ohio will address, effectively serving as the last bidder for these uncontested areas. To create this public-private partnership, Ohio will post an RFI for interested providers and then a subsequent RFP.

[\(Req 2.4.8\) Description of how BroadbandOhio intends to submit proof of Tribal Governments’ consent to deployment if planned projects include any locations on Tribal Lands.](#)

Not applicable

[\(Req 2.4.9\) Outline of the detailed process for identifying an Extremely High Cost Per Location Threshold to be utilized during the subgrantee selection process, including a description of the cost models used and the parameters of those cost models \(e.g., whether they consider only capital expenditures or include operational costs for the lifespan of the network\).](#)

BroadbandOhio will set a preliminary Extremely High Cost Per Location Threshold (EHCPLT) by leveraging the greenfield fiber NPV / subsidy cost-modeling data provided to Ohio through the Eligible Entity Toolkit. BroadbandOhio will also review and consider the data on subsidy levels that will be provided in applications in ORBEG Round 2, which will be conducted during Q4 2023 and Q1 2024. This preliminary value will be published prior to the start of the application process to enhance the transparency of the process.

Using the greenfield NPV data provided in the Eligible Entity toolkit, BroadbandOhio will:

- Calculate the total greenfield fiber subsidy costs for all project area units that contain unserved and underserved locations, then sum the value across all PAUs. BroadbandOhio will sum the greenfield NPV data provided in the Eligible Entity toolkit for each project area unit to estimate the total required BEAD outlay. The subsidy cost will be set equal the maximum of this sum, and a value deemed to be an approximation of the transaction costs for participating in the grant program.
- Compare the total sum against Ohio's BEAD funding allocation.
- If the sum in step (1) is less the state's BEAD funding allocation (\$793 million), no EHCPLT will be set.
- If the sum exceeds the BEAD funding allocation for Ohio (\$793 million), then BroadbandOhio will determine an EHCPLT by following the steps below.
- [If sum exceeds the BEAD funding allocation for Ohio] Calculate the total greenfield fixed wireless (FW) subsidy for all project area units that contain unserved and underserved locations. Fixed wireless greenfield NPV subsidy estimates from the Eligible Entity tool kit will be leveraged to determine the FW subsidy per project area unit. The subsidy cost will be set equal the maximum of this sum, and a value deemed to approximate the transaction costs for participating in the grant program.
- Calculate the difference between the average per-location subsidy for fiber and fixed wireless deployment, and order project area units by that difference, from largest to smallest.

- Set the EHCPLT as \$1 below the per-location fiber subsidy of the highest-ranking project area unit above.
- Calculate the total estimated BEAD outlay as the sum of:
- Project area unit (PAU) fiber subsidy where the per-location fiber subsidy is lower than the EHCPLT; and,
- Project area unit FW subsidy, where the per-location fiber subsidy is higher than the EHCPLT.
- Reduce the EHCPLT until it is set as the highest value that allows the total estimated BEAD outlay to be lower than the BEAD funding allocation for Ohio.

BroadbandOhio will review the data acquired through the execution of ORBEG Round 2, and compare total CapEx, subsidy levels, and their drivers with the data provided through the Eligible Entity Toolkit to determine if any adjustments to the methodology defined above are needed. Broadband will then publish the preliminary EHCPLT.

BroadbandOhio reserves the right to reduce the preliminary EHCPLT should a lower threshold be needed to maximize coverage, while also maximizing fiber deployment.

**(Req 2.4.10)** The plan for using the Extremely High Cost Per Location Threshold in the subgrantee selection process to maximize the use of the best available technology while ensuring that the program can meet the prioritization and scoring requirements set forth in Section IV.B.6.b of the BEAD NOFO. The plan must include:

- a. The process for declining a subgrantee proposal that exceeds the threshold when an alternative technology is less expensive.
- b. The plan for engaging subgrantees in revising their proposals and ensuring that locations do not require a subsidy.
- c. The process for selecting a proposal that involves a less costly technology and may not meet the definition of Reliable Broadband.

The EHCPLT, which will be set ahead of the ORBEG-BEAD grant round, may be utilized only after all deconflicted Priority Broadband Projects are reviewed and scored. If it is determined that all Priority Broadband Projects cannot be provisionally awarded within the state's BEAD allocation,

or that all unserved and underserved locations cannot be reached if all Priority Broadband Projects are funded (i.e., determined by comparing Ohio's BEAD allocation against the sum of provisionally awarded Priority Broadband Projects and the reference price for any PAUs without applications), then BroadbandOhio will execute the following steps:

- For all applications where the subsidy for the provisionally awarded Priority Broadband Projects exceeds the preliminary EHCPLT, or for PAUs where there are no Priority Broadband Project proposals, applications for non-fiber reliable technologies will be reviewed and scored. Priority Broadband Projects will not be given an opportunity to cure their application should they be found to exceed the EHCPLT.
- The highest scoring non-fiber applications will be identified and marked for provisional awards, and the impact of those applications on the total BEAD outlay, the impact on the coverage map, and the number of additional applications that must be deconflicted will be assessed.
- When, by implementing the above steps, the total BEAD outlay has been reduced to be within Ohio's allocation, the count of unserved locations has been reduced to zero, and the count of underserved locations is minimized, Ohio will proceed to the steps below for the finalization of preliminary awards.
- If, after assessing all non-fiber applications, the projected total BEAD outlay is still above Ohio's allocation, then Ohio will rank all Priority Broadband Projects by the average subsidy per location, and set the EHCPLT to 1 dollar below the highest ranked application that has conflicting non-fiber applications.
- Ohio will then repeat steps (2) – (4) until the projected BEAD outlay is below Ohio's allocation.

**Finalization of preliminary awards.** BroadbandOhio will then finalize the provisional awards identified in steps (1) – (5) above. This includes declining a subgrantee proposal that exceeds the threshold when an alternative technology is less expensive, due to the goal of maximizing coverage while also maximizing the use of end-to-end fiber projects.

If there are unassigned project area units after taking the steps above, based on the number of unassigned project area units, BroadbandOhio will conduct one of the following activities:

- If the count of unassigned project area units compared to the average number of PAUs per application is not relatively large, BroadbandOhio may engage providers who are proximate to remaining unserved and underserved locations (either due to their current footprint, or their winning BEAD applications), and encourage them to incorporate the remaining locations into their proposals, which may or may not need an additional subsidy. This process may include breaking up project area units into

- smaller subdivisions, or addressing other barriers to deployment faced by providers.
- If the count of unassigned project area units compared to the average number of PAUs per application in the prior grant round is relatively large, BroadbandOhio will open the remaining project area units for a subsequent grant round, and consider the following actions based on insights and results from the prior grant round:
    - Adjusting the reference costs in remaining PAUs to make PAUs more attractive for applications
    - Allowing any fixed or wireless provider to apply, whether or not they are a reliable technology
    - Potentially waiving part of the 25% match requirement. During the subsequent round only, BroadbandOhio will request prospective subgrantees whether they require a match waiver to be able to complete the proposed project. If a given project area unit has an uncontested application that is willing to deploy but only with a reduced match requirement, BroadbandOhio will work toward requesting a waiver be granted by NTIA. If, however, there are other competitors that do not require a match waiver applying for the same PAU, they will be prioritized over the application requiring a match waiver. This step will help solicit providers that would be willing to participate if the waiver requirement could be negotiated, thereby helping solicit more applications toward reaching universal service per BEAD's objective.

In a subsequent grant round, all applications would be scored according to the rubric defined in 2.4.2. Uncontested Priority Broadband Projects would be provisionally awarded first, followed by the scoring and deconfliction of conflicting Priority Broadband Projects. Next, conflicting applications for non-fiber reliable technology applications will be scored and deconflicted, followed by applications leveraging non-reliable technologies. If a proposal for a project that includes a less costly technology that does not meet the definition of Reliable Broadband scores the highest per the prioritization and scoring process defined above, that proposal could be selected through this process.

## Deployment Subgrantee Qualifications

(Req 2.4.11) Description of how the BroadbandOhio will ensure prospective subgrantees deploying network facilities meet the minimum qualifications for financial capability as outlined on pages 72 – 73 of the BEAD NOFO, including:

- a. Detail on how BroadbandOhio will require prospective subgrantees to certify that they are qualified to meet the obligations associated with a Project, that prospective

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

- b. Detail on how BroadbandOhio plans to establish a model letter of credit substantially similar to the model letter of credit established by the FCC in connection with the Rural Digital Opportunity Fund (RDOF).
- c. Detail on how BroadbandOhio will require prospective subgrantees to submit audited financial statements.
- d. Detail how BroadbandOhio will require prospective subgrantees to submit business plans and related analyses that substantiate the sustainability of the proposed project.

For all qualification requirements, two months prior to the BEAD subgrantee process, BroadbandOhio will open the pre-qualification filing window for prospective subgrantees. During this filing window, prospective subgrantees will be required to submit their materials and any required certifications to demonstrate their qualifications, including qualifications pertaining financial, operational, managerial, technical, compliance, ownership, and other public funding.

BroadbandOhio will require the following information from prospective subgrantees to ensure they meet BEAD's qualification criteria for financial capability. For the relevant application forms, please refer to **2.4.11.1 Optional Attachment**.

#### **How BroadbandOhio will require prospective subgrantees to certify that they are qualified to meet the obligations associated with a Project**

BroadbandOhio will require from each applicant a certification that they are qualified to meet the obligations associated with its proposed BEAD project, that they will have available funds for all project costs that exceed the amount of the grant, and that they will comply with all Program requirements, including service milestones. They will also be certified that it has and will continue to have sufficient financial resources to cover its eligible costs for the proposed BEAD project until such time as BroadbandOhio authorizes additional disbursements.

Specifically, BroadbandOhio will request all subgrantees to provide proof that the applicant broadband provider has the financial stability to complete the project. The broadband provider must provide evidence of financial stability. This evidence may include publicly available financial statements, copies of federal and state tax returns, or other documents that provide proof of financial stability. They will be required to note whether the financial statements were prepared internally or by a third party.

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

### **How BroadbandOhio plans to establish a model letter of credit**

BroadbandOhio intends to seek a waiver for the BEAD letter of credit requirement so that letters of credit can be requested at the discretion of the Ohio Broadband Expansion Program Authority. This is to ensure that smaller providers are not barred from participating in BEAD if they can otherwise prove financial stability. During listening sessions, participants have already raised that letter of credit requirements can particularly become a dealbreaker for smaller ISPs. BroadbandOhio expects that a waiver for letter of credit requirements will help ensure wider participation from ISPs, increase competition, and thereby improve the quality of bids, which combined may ultimately help bolster effective BEAD outlay to reach universal service.

Instead of a blanket requirement for letters of credit, BroadbandOhio will assess the information provided above, as well as the information provided as part of the rest of this BEAD requirement, to evaluate whether the applicant has sufficient financial stability to undertake the proposed project. Specifically, each applicant awarded BEAD program funds will enter into a grant agreement setting forth the terms and the conditions of the program grant. In addition to the grant agreement, BroadbandOhio may require a performance bond, letter of credit, or other financial assurance if determined that the completion of the project requires additional security based on its assessment of the complete application. BroadbandOhio may rescind an award of funds to a broadband provider for failure to execute a program grant agreement within 90 days of the determination of the authority to approve the provider's complete application.<sup>42</sup>

### **How BroadbandOhio will require prospective subgrantees to submit audited financial statements**

As outlined above, BroadbandOhio will request all subgrantees to provide proof that the applicant broadband provider has the financial stability to complete the project. The broadband

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<sup>42</sup> [ORBEG Rules](#), Rule 122:30-1-05, "Ohio Residential Broadband Expansion Grant Program," BroadbandOhio, December 16, 2021

provider must provide evidence of financial stability. This evidence may include publicly available financial statements, copies of federal and state tax returns, other documents that provide proof of financial stability. They will be required to note whether the financial statements were prepared internally or by a third party. Applicants may include other documents, including a letter of credit or bond.<sup>43</sup>

Per BEAD's requirement, BroadbandOhio will require an audited financial statement from prospective subgrantees. If the potential subgrantee has not been audited during the ordinary course of business, in lieu of submitting audited financial statements, it must submit unaudited financial statements from the prior fiscal year and certify that it will provide financial statements from the prior fiscal year that are audited by an independent certified public accountant by a deadline specified by BroadbandOhio.<sup>44</sup>

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

### How BroadbandOhio will require prospective subgrantees to submit business plans and related analyses that substantiate the sustainability of the proposed project

BroadbandOhio will require as part of the above proof of financial stability a business plan and related analyses that substantiate the sustainability of the proposed project. Example forms in which this can be provided include pro forma statements or analyses, inclusive of cash flow and balance sheet projections and should include at least three years of operating cost and cash flow projections post targeted completion of project.<sup>45</sup>

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

BroadbandOhio will assess the received information above to determine that they meet financial stability requirements through the following:

**Completion of application packet.** Applicants will be screened for submitting all required supporting document for this requirement. This includes the certification, audited financial statements, copies of federal and state tax returns, business plans and related analyses.

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<sup>43</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>) and application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>).

<sup>44</sup> NTIA BEAD NOFO page 73.

<sup>45</sup> NTIA BEAD NOFO page 73.

**Satisfaction of specific document requirements.** Applicants will be screened for fully satisfying document-specific requirements. For instance, the certification will be checked to see whether it has been properly notarized. The financial statements must state whether it has been prepared internally or by a 3<sup>rd</sup> party, and clearly demonstrate that it has been audited by an independent auditor. Business plans and related analyses must include at least 3 years of operating cost and cash flow projections post targeted completion of project.

**Sufficient proof for stated financial stability.** The applicant's narrative and certification for proof of financial stability will be cross-checked with the submitted application material to confirm that the applicant has provided relevant supporting evidence cited in the narrative, to assess the soundness of the narrative.

**2.4.11.1 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.

Please find attached the application materials related to the BEAD subgrantee selection process [BEAD Initial Proposal\_Volume II\_Subgrantee Selection Process Application Materials]. Included is a crosswalk against the requirements in the Deployment Subgrantee Qualification section.

**(2.4.12) Description of how the BroadbandOhio will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for managerial capability as outlined on pages 73 – 74 of the BEAD NOFO, including:**

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

BroadbandOhio will require prospective subgrantees to submit a description of, or documentation demonstrating, the broadband provider's managerial and technical expertise and experience with broadband service projects. Applicant may provide descriptions of expertise and experience on the application itself or as an Attachment. Descriptions of expertise and

experience should be in narrative form, and based on company and project-level expertise and experience.<sup>46</sup>

**Resumes for key management personnel.** Per BEAD requirements, prospective subgrantees will be required to submit to BroadbandOhio resumes for all key management personnel and any necessary organizational chart(s) detailing all parent, subsidiaries, and affiliates.

**Narrative describing their readiness to manage their proposed project and ongoing services provided.** per BEAD requirements, applicants would be required to include in this narrative, a minimum of (i) experience and qualifications of key management for undertaking this project, (ii) its experience undertaking projects of similar size and scope, (iii) recent and upcoming organizational changes including mergers and acquisitions, and relevant organizational policies.<sup>47</sup> **For b(i)**, applicants will be required to describe the management experience of the applicant in general and of the managers that will be on the project, if applicable.<sup>48</sup> **For b(ii)**, applicants will be required to provide a description of service project experience, which must include information detailing how the applicant has completed similar projects as the one being applied for. If this project is larger than any project that the applicant has completed, they will be required to provide experience on smaller projects and how the applicant can scale that expertise to the current application.<sup>49</sup> **For b(iii)**, applicants will be required to include in the narrative any recent and upcoming organizational changes, any relevant organizational policies, and how these equip the applicant with the relevant managerial skills required for the project.

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

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<sup>46</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>) and application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>).

<sup>47</sup> NTIA BEAD NOFO pages 73-74

<sup>48</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>) and application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>).

<sup>49</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>) and application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>).

BroadbandOhio will assess the received information to determine that they meet managerial capability requirements through the following:

**Completion of application packet.** Applicants will be screened for submitting all required supporting document for this requirement. This includes the requirements for resumes and organization charts, as well as **b(i) to b(iii)** as outlined above.

**Sufficient proof for stated managerial capability.** The applicant's narrative for managerial capability will be cross-checked with the submitted application material to confirm that the applicant has provided relevant supporting evidence cited in the narrative and provides sufficient explanation of the relevance of the proof submitted, to assess the soundness of the narrative. For instance, for (i), if the applicant references resumes for key managerial staff as proof of such management experience, it must also include a detailed explanation of how the resume demonstrates sufficient managerial capability relevant for the proposed project. For (ii), an applicant's claim of experience undertaking projects of similar size and scope must be accompanied by proof of undertaking such a project, as well as a detailed explanation of how that project is similar in size and scope with the proposed project.

**(Req 2.4.13):** Description of how BroadbandOhio will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for technical capability as outlined on page 74 of the BEAD NOFO, including:

- a. How BroadbandOhio will require prospective subgrantees to certify that they are technically qualified to complete and operate the Project and that they are capable of carrying out the funded activities in a competent manner, including that they will use an appropriately skilled and credentialed workforce.
- b. How BroadbandOhio will require prospective subgrantees to submit a network design, diagram, project costs, build-out timeline and milestones for project implementation, and a capital investment schedule evidencing complete build-out and the initiation of service within four years of the date on which the entity receives the subgrant, all certified by a professional engineer, stating that the proposed network can deliver broadband service that meets the requisite performance requirements to all locations served by the Project.

Requirement for prospective subgrantees to certify it is technically qualified to complete and operate the Project, and capable of carrying out the funded activities in a competent manner, including that they will use an appropriately skilled and credentialed workforce. BroadbandOhio will require prospective subgrantees to submit a description of, or documentation demonstrating, the broadband provider's managerial and technical expertise and experience with broadband service projects. Applicant may provide descriptions of expertise and experience on the application itself or as an Attachment. For the description of technical expertise, the applicant will be required to describe that it has the technical expertise to complete the project, including any possible certifications that are applicable and other credentials.<sup>50</sup> As described above in 2.4.12, applicants will also be required to provide a description of service project experience, which must include information detailing how the applicant has completed similar projects as the one being applied for. If this project is larger than any project that the applicant has completed, they will be required to provide experience on smaller projects and how the applicant can scale that expertise to the current application.<sup>51</sup>

Per BEAD requirements, BroadbandOhio will additionally require all prospective subgrantees to submit information pertaining to its commitment to use an appropriately skilled and credentialed workforce. Specifically, this would include a plan that demonstrates at a minimum the following for the project workforce (including contractors and subcontractors):

- The ways in which the prospective subgrantee will ensure the use of an appropriately skilled workforce—for example, through registered apprenticeships or other joint labor-management training programs that serve all workers (including those offered through the Strategy).
- The steps that will be taken to ensure that all members of the project workforce will have appropriate credentials—such as appropriate and relevant pre-existing occupational training, certification, and licensure (including those offered through the Strategy, as all Strategy-affiliated training programs provide industry-recognized credentials upon completion).

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<sup>50</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>) and application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>).

<sup>51</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>) and application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>).

- Whether the workforce is unionized. If the project workforce or any subgrantee’s, contractor’s, or subcontractor’s workforce is not unionized, the following information must be provided with respect to the non-union workforce:
  - The job titles and size of the workforce (FTE positions, including for contractors and subcontractors) required to carry out the proposed work over the course of the project and the entity that will employ each portion of the workforce.
  - For each job title required to carry out the proposed work (including contractors and subcontractors), a description of:
    - Safety training, certification, and/or licensure requirements (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training as relevant depending on title and work), including whether there is a robust in-house training program with established requirements tied to certifications and titles.
    - Information on the professional certifications and/or in-house training in place to ensure that deployment is done at a high standard.
- Whether the workforce will be directly employed or the work will be performed by a subcontracted workforce.
- The entities that the proposed subgrantee plans to contract and subcontract with in carrying out the proposed work.

Additionally, BroadbandOhio will require all subgrantees to participate in the Broadband and 5G Sector Partnership, a key component of the “Strengthening Ohio’s Broadband & 5G Workforce” strategy, and the scoring criteria defined above will further incentivize subgrantees to hire from apprenticeship programs, including those directly from the Strategy. All Strategy apprenticeship participants will be equipped with industry-recognized credentials, which will help ensure project workforce is appropriately skilled and credentialed.

For additional information, please refer to **2.8.2** of this document.

BroadbandOhio will additionally consider the prospective subgrantee’s record of compliance with applicable laws, which will be further outlined in **2.4.14** below.

For **(b)**, per BEAD requirements, BroadbandOhio will require prospective subgrantees to submit the following information: (i) network design, (ii) diagram, (iii) project costs, (iv) build-out timeline and milestones for project implementation, and (v) a capital investment schedule evidencing complete build-out and the initiation of service within four years of the date on which the entity receives the subgrant. Specific information to be required for each is detailed below.

For b(i), BroadbandOhio will require, at a minimum, the following information:

**Type Of Technology.** The prospective subgrantee will be required to share whether they plan to use wired, wireless, or satellite technology to complete the project.<sup>52</sup>

**Scalability of the project.** The prospective subgrantee will be required to share a description of the scalability of the project.<sup>53</sup>

**Download & Upload Speeds.** The prospective subgrantee will be required to share megabit-per-second broadband download and upload speeds planned for the project.<sup>54</sup>

Beyond the information above, prospective subgrantees will be expected to provide a near-complete, if not complete, network design that is ready for a professional engineer's review for certification to be able to meet its professional engineer certification requirement if selected as a subgrantee within the stipulated timeline, which will be described further below.

**Description of how the design incorporates and mitigates considerations for climate risks as identified in Climate Assessment (2.11.1) for relevant counties.** The prospective subgrantee must include a description of how it has taken into consideration the climate assessment and key risks identified for the project areas they are applying for, and how their network design addresses these risks. Prospective subgrantees would be strongly recommended to consider mitigation strategies identified in this Initial Proposal.

For b(ii), BroadbandOhio will require relevant diagrams to be submitted that corroborates the above network design submission.

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<sup>52</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>), application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>), and Ohio House Bill 33, Section 122.4020 ([https://search-prod.lis.state.oh.us/solarapi/v1/general\\_assembly\\_135/bills/hb33/EN/06/hb33\\_06\\_EN?format=pdf](https://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_135/bills/hb33/EN/06/hb33_06_EN?format=pdf)).

<sup>53</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>), application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>), and Ohio House Bill 33, Section 122.4020 ([https://search-prod.lis.state.oh.us/solarapi/v1/general\\_assembly\\_135/bills/hb33/EN/06/hb33\\_06\\_EN?format=pdf](https://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_135/bills/hb33/EN/06/hb33_06_EN?format=pdf)).

<sup>54</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>), application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>), and Ohio House Bill 33, Section 122.4020 ([https://search-prod.lis.state.oh.us/solarapi/v1/general\\_assembly\\_135/bills/hb33/EN/06/hb33\\_06\\_EN?format=pdf](https://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_135/bills/hb33/EN/06/hb33_06_EN?format=pdf)).

For b(iii), BroadbandOhio will require the following information:

**The amount of the broadband funding gap and the amount of state funds requested.**

“Broadband funding gap” means the difference between the total amount of money a broadband provider calculates is necessary to construct the last mile of a specific broadband network and the total amount of money that the provider has determined is the maximum amount of money that is cost effective for the provider to invest in last mile construction for that network.<sup>55</sup>

Per BEAD requirements, BroadbandOhio will additionally require that each proposal from a prospective subgrantee identify, for each location to be served in the proposal, the amount of BEAD funding the prospective subgrantee is seeking to serve that location.<sup>56</sup>

**Information regarding financial or in-kind contributions to be used towards the broadband funding gap.** Applicants will be required to submit as part of their application information regarding the amount of any financial or in-kind contributions to be used towards the broadband funding gap and identification of the contribution sources, which may include, but are not limited to, any combination of the following:

- Funds that the broadband provider is willing to contribute to the broadband funding gap
- Funds received or approved under any other federal or state government grant or loan program
- General revenue funds of a municipal corporation, township, or county comprising the area of the eligible project
- Other discretionary funds of the municipal corporation, township, or county comprising the area of the eligible project
- Any alternate payment terms that the broadband provider and any legislative authority in which the project is located have negotiated and agreed to pursuant to section 122.4025 of the Revised Code
- Contributions or grants from individuals, organizations, or companies
- Property tax assessments made by the municipal corporation under Chapter 727. of

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<sup>55</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>), application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>), and Ohio House Bill 33, Section 122.4020 ([https://search-prod.lis.state.oh.us/solarapi/v1/general\\_assembly\\_135/bills/hb33/EN/06/hb33\\_06\\_EN?format=pdf](https://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_135/bills/hb33/EN/06/hb33_06_EN?format=pdf)).

<sup>56</sup> NTIA BEAD NOFO page 38.

the Revised Code, township under section 505.881 of the Revised Code, or county under section 303.251 of the Revised Code

Applicants will be required to submit amount, source, and use of each financial and in-kind contribution as part of their application packet.<sup>57</sup>

Regarding the BEAD-required 25% match, BroadbandOhio will collaborate with the Governor's Office of Appalachia to support prospective subgrantees applying for distressed counties (Scioto, Meigs, Athens, Noble), where highest-scoring ORBEG applicants requiring match support to undertake the proposed project will get match funds through Appalachian Regional Commission (ARC), until funds run out.

For scoring purposes, only cash will be considered for additional points beyond the initial 25% match for BEAD funding requirements.

**Information regarding financial or in-kind contributions received or approved for any part of the overall eligible project cost not applied to the broadband funding gap.** Applicants will be required to submit as part of their application information regarding the source and amount of any financial or in-kind contributions received or approved for any part of the overall eligible project cost, but not applied to the broadband funding gap. Potential sources can be found above, for “**Information regarding financial or in-kind contributions to be used towards the broadband funding gap.**” Applicants will be required to submit amount, source, and use of each financial and in-kind contribution as part of their application packet.<sup>58</sup>

For **b(iv)**, BroadbandOhio will require the following information:

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<sup>57</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>), application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>), and Ohio House Bill 33, Section 122.4020 ([https://search-prod.lis.state.oh.us/solarapi/v1/general\\_assembly\\_135/bills/hb33/EN/06/hb33\\_06\\_EN?format=pdf](https://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_135/bills/hb33/EN/06/hb33_06_EN?format=pdf)).

<sup>58</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>), application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>), and Ohio House Bill 33, Section 122.4020 ([https://search-prod.lis.state.oh.us/solarapi/v1/general\\_assembly\\_135/bills/hb33/EN/06/hb33\\_06\\_EN?format=pdf](https://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_135/bills/hb33/EN/06/hb33_06_EN?format=pdf)).

**Construction Timetable.** All prospective applicants will be required to submit a projected construction timetable, including the anticipated date of the provision of tier two broadband service access within the project.

**Government Authorizations.** All prospective applicants will be required to submit a description of anticipated or preliminary government authorizations, permits, and other approvals required in connection with the project, and an estimated timetable for the acquisition of such approvals. They will also be required to provide a description of any authorizations, permits or other approvals to use public infrastructure that have already been obtained or executed.<sup>59</sup>

**Preliminary list of milestones for project implementation.** As part of ORBEG awardee agreements, BroadbandOhio requires awardees to submit milestones, upon which completion grant funds will be disbursed on a reimbursable basis. In line with BEAD requirements, BroadbandOhio will require prospective subgrantees to submit a preliminary list of milestones for project implementation, to be refined and finalized as part of the awardee agreements if selected.

For b(v), BroadbandOhio will require prospective subgrantees to submit a capital investment schedule that would evidence complete build-out and the initiation of service within 4 years of the date on which the entity receives the subgrant. The capital investment schedule must be in line with above construction timetable and milestones to demonstrate that deployment will be completed within the required timeframe.

### **Partial Waiver: Professional Engineer Requirement Prior to Application**

BroadbandOhio intends to seek a waiver for the BEAD requirement to have the prospective subgrantee's application certified by a professional engineer, stating that the proposed network can deliver broadband service that meets the requisite performance requirements to all locations served by the Project, at the time of application. Considering the anticipated scale of the BEAD deployment efforts and the timeline for subgrantee selection process, BroadbandOhio anticipates significant difficulties for potential subgrantees to obtain a certification prior to

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<sup>59</sup> See, for instance, ORBEG application guide (<https://broadband.ohio.gov/static/ohio-residential-broadband-expansion-grant-program-application-guide-10192021.pdf>), application form (<https://broadband.ohio.gov/static/Broadband-Grant-Application-10182021.pdf>), and Ohio House Bill 33, Section 122.4020 ([https://search-prod.lis.state.oh.us/solarapi/v1/general\\_assembly\\_135/bills/hb33/EN/06/hb33\\_06\\_EN?format=pdf](https://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_135/bills/hb33/EN/06/hb33_06_EN?format=pdf)).

application submission. BroadbandOhio also anticipates that requiring providers to incur the cost and time to receive a professional engineer certification before awards are not yet confirmed may be a strenuous requirement for ISPs, and thus may serve as a barrier to entry especially for smaller broadband providers that may not have an in-house professional engineer that can certify the project design. BroadbandOhio believes that this may in turn negatively impact provider interest in participation, degree of competition, and subsequent quality of applications, all of which may lower efficiency of BEAD outlay.

Instead, BroadbandOhio seeks to require the certification by a professional engineer after awards have been announced but prior to disbursement of funds. As part of the award agreement, BroadbandOhio will require all awarded subgrantees to obtain a certification from a professional engineer within 6 months of award announcement, and should an awarded subgrantee prove to be unable to obtain this certification by this time and needs to withdraw, it will be subject to a penalty of 20% of the originally awarded BEAD funding. BroadbandOhio will therefore expect potential subgrantees to have a sufficient understanding of the technical requirements for their proposed projects, and anticipates that their proposed projects at the time of application would still be largely in line with the final certified plan. As such, BroadbandOhio will strongly encourage all subgrantees to submit a near-final plan that is ready to be reviewed by a professional engineer if the project is selected.

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

BroadbandOhio will assess the received information to determine that they meet technical capability requirements through the following:

**Completion of application packet.** Applicants will be screened for submitting all required supporting document for this requirement. This includes the requirements for technical certification, information regarding appropriately skilled and credentialed workforce, network design, diagram, project costs, build-out timeline and milestones, and a capital investment schedule.

**Satisfaction of specific document requirements.** Applicants will be screened for fully satisfying document-specific requirements. For instance, the build-out plan will be cross-checked to ensure that it aligns with the capital investment schedule, and will be checked to verify that the proposed plan will complete deployment within 4 years. Additionally, at the time of the engineer certification, the certification will be cross-checked to ensure that the certifying engineer holds a current, applicable license in Ohio.

**Sufficient proof for stated technical capability.** The applicant's narrative for technical capability will be cross-checked with the submitted application material to confirm that the applicant has provided relevant supporting evidence cited in the narrative and provides sufficient explanation

of the relevance of the proof submitted, to assess the soundness of the narrative. For instance, if the applicant references specific credentials to prove their technical capabilities, it must also include a detailed explanation of how the given credential is relevant for the proposed project, and any available proof for the given credential.

**(Req 2.4.14):** Description of how BroadbandOhio will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for compliance with applicable laws as outlined on page 74 of the BEAD NOFO, including:

- a. How BroadbandOhio will require prospective subgrantees to demonstrate that they are capable of carrying out funded activities in a competent manner in compliance with all applicable federal, state, territorial, and local laws.
- b. How BroadbandOhio will require prospective subgrantees to permit workers to create worker-led health and safety committees that management will meet with upon reasonable request.

For **(a)**, in line with **2.7.1**, BroadbandOhio will require prospective subgrantees to submit the following:

- Record of past compliance with federal labor and employment laws, which must address information on these entities' compliance with federal labor and employment laws on broadband deployment projects in the last five years
- Certification from an Officer/Director-level employee (or equivalent) of the prospective subgrantee evidencing consistent past compliance with federal labor and employment laws by the subgrantee, as well as all contractors and subcontractors
- Written confirmation that the prospective subgrantee discloses any instances in which it or its contractors or subcontractors have been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws for the preceding five years.

Expanding upon the above requirement, BroadbandOhio will additionally require:

- A record and explanation of Occupational Safety and Health Administration violations within the 5 years preceding the application date
- A record and explanation of de-certification for state government procurement at any state in the United States within the 5 years preceding the application date

This measure will additionally help evaluate the prospective subgrantee's capability of carrying out funded activities in a competent manner in compliance with all applicable federal, state, territorial, and local laws.

As part of technical capabilities qualification review above, BroadbandOhio will check that the submitted build-out timeline and capital investment schedule is projected to complete build-out and the initiation of service within four years of the date on which the entity receives the subgrant.

**For (b)**, in line with **2.7.1**, BroadbandOhio will require prospective subgrantees to submit plans for ensuring compliance with federal labor and employment laws, which must include the following:

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

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

BroadbandOhio will assess the received information to determine that they meet compliance requirements through the following:

**Completion of application packet.** Applicants will be screened for submitting all required supporting document for this requirement. This includes the requirements for record of compliance, certification from management, written record and explanation of relevant violations and de-certification for state procurement, and plans for ensuring compliance (including applicable wage scale and overtime payment and workforce safety committee plans).

**Satisfaction of specific document requirements.** Applicants will be screened for fully satisfying document-specific requirements. For instance, the certification of past compliance will be cross-checked to ensure that the signing employee is an Officer/Director-level employee.

**Sufficient proof for stated capability for compliance.** The applicant's narrative for capability for compliance will be cross-checked with the submitted application material to confirm that the applicant has provided relevant supporting evidence cited in the narrative and provides

sufficient explanation of the relevance of the proof submitted, to assess the soundness of the narrative. For instance, if the applicant has any OSHA violations, the extent of violations (e.g., cross-check for significantly high count of violations) and their explanation will be reviewed to determine whether the prospective subgrantee has sufficiently addressed and mitigated the violations to ensure it does not reoccur.

**(Req 2.4.15):** Description of how BroadbandOhio will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for operational capability as outlined on pages 74 – 75 of the BEAD NOFO, including:

- a. How BroadbandOhio will require prospective subgrantees to certify that they possess the operational capability to qualify to complete and operate the Project.
- b. How BroadbandOhio will require prospective subgrantees to submit a certification that they have provided a voice, broadband, and/or electric transmission or distribution service for at least two (2) consecutive years prior to the date of their application submission or that they are a wholly owned subsidiary of such an entity and attest to and specify the number of years the prospective subgrantee or its parent company has been operating.
- c. How BroadbandOhio will require prospective subgrantees that have provided a voice and/or broadband service, to certify that it has timely filed Commission Form 477s and the Broadband DATA Act submission, if applicable, as required during this time period, and otherwise has complied with the Commission's rules and regulations.
- d. How BroadbandOhio will require prospective subgrantees that have operated only an electric transmission or distribution service, to submit qualified operating or financial reports, that it has filed with the relevant financial institution for the relevant time period along with a certification that the submission is a true and accurate copy of the reports that were provided to the relevant financial institution.

- e. In reference to new entrants to the broadband market, how BroadbandOhio will require prospective subgrantees to provide evidence sufficient to demonstrate that the newly formed entity has obtained, through internal or external resources, sufficient operational capabilities.

**For (a)**, all prospective applicants will be required to provide a narrative of their operational capability to qualify to complete and operate the Project. This must include:

**Description of operational and Customer Service capability.** All prospective subgrantees must provide a description of their customer service capabilities, including any locally based call centers or customer service offices. This information must include any relevant information including, but not limited to, (i) how long it takes to resolve complaints, (ii) wait times for customer service, (iii) surveys of customer satisfaction, (iv) service rate information for new customers, (v) any call centers or customer service centers that are located in Ohio (N/A if there are no offices of this sort in the state), and (vi) any other relevant information detailing the customer service capability deemed relevant.

**Customer Service Policies.** All prospective subgrantees must provide a copy of their general customer service policies, including any policy to credit customers for service outages or the provider's failure to keep scheduled appointments for service. This should be the documentation that is otherwise provided to a new customer that receives service from the applicant.

**For (b)**, all prospective subgrantees that has provided a voice, broadband, and/or electric transmission or distribution service for at least the two (2) consecutive years prior to the date of its application submission or that it is a wholly owned subsidiary of such an entity, must submit a certification that attests to these facts and specify the number of years the prospective subgrantee or its parent company has been operating. This information will be leveraged for the scoring criteria as well.

**For (c)**, all prospective subgrantees that have provided a voice and/or broadband service will be required to certify that it has timely filed Commission Form 477s and the Broadband DATA Act submission, if applicable, as required during this time period, and otherwise has complied with the Commission's rules and regulations. Alternatively, a prospective subgrantee should explain

any pending or completed enforcement action, civil litigation, or other matter in which it failed to comply or was alleged to have failed to comply with Commission rules or regulations.

**For (d)**, all prospective subgrantees that have operated only an electric transmission or distribution service will be required 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.

As part of this requirement, BroadbandOhio will additionally require prospective subgrantees to submit a list of any complaints filed to the Public Utilities Commission of Ohio (PUCO) and an explanation for each for the past 5 years, as a means of understanding the prospective subgrantee's operational and customer service capability.

**For (e)**, all prospective subgrantees that are new entrants to the broadband market will be required to provide evidence sufficient to demonstrate that the newly formed entity has obtained, through internal or external resources, sufficient operational capabilities.

BroadbandOhio will require evidence including but not limited to resumes from key personnel, project descriptions and narratives from contractors, subcontractors, or other partners with relevant operational experience, and any other comparable evidence deemed relevant.

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

BroadbandOhio will assess the received information to determine that they meet operational requirements through the following:

**Completion of application packet.** Applicants will be screened for submitting all required supporting document for this requirement.

**Satisfaction of specific document requirements.** Applicants will be screened for fully satisfying document-specific requirements. For instance, the information regarding number of years providing service will be checked to ensure it has been provided with satisfactory proof and relevant certification; information on PUCO complaints will be cross-checked to ensure it covers the full time period of 5 years.

**Sufficient proof for stated operational capability.** The applicant's narrative for operational capability for compliance will be cross-checked with the submitted application material to

confirm that the applicant has provided relevant supporting evidence cited in the narrative and provides sufficient explanation of the relevance of the proof submitted, to assess the soundness of the narrative. For instance, specific application material that can be verified with relevant authorities (e.g., FCC for (c), PUCO for (d)) will be additionally cross-checked by BroadbandOhio for validity, and applicants submitting false information will be disqualified if not properly rectified. Beyond the cross-checking above, narratives including customer service capabilities will be cross-checked with submitted evidence. For instance, for a new entrant applicant, if the application references resumes for key personnel as proof of operational capability, it must also include a detailed explanation of how the resume demonstrates sufficient operational capability relevant for the proposed project.

**(Req 2.4.16):** Description of how BroadbandOhio will ensure that any prospective subgrantee deploying network facilities meets the minimum qualifications for providing information on ownership as outlined on page 75 of the BEAD NOFO, including:

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

BroadbandOhio will require the full disclosure of the following information by all prospective subgrantees, in line with 47 C.F.R. § 1.2112(a)(1)-(7):

- (1) List of the real party or parties in interest in the applicant or application, including a complete disclosure of the identity and relationship of those persons or entities directly or indirectly owning or controlling (or both) the applicant;
- (2) List of the name, address, and citizenship of any party holding 10 percent or more of stock in the applicant, whether voting or nonvoting, common or preferred, including the specific amount of the interest or percentage held;
- (3) List, in the case of a limited partnership, of the name, address and citizenship of each limited partner whose interest in the applicant is 10 percent or greater (as calculated according to the percentage of equity paid in or the percentage of distribution of profits and losses);
- (4) List, in the case of a general partnership, of the name, address and citizenship of each partner, and the share or interest participation in the partnership;
- (5) List, in the case of a limited liability company, of the name, address, and citizenship of each of its members whose interest in the applicant is 10 percent or greater;
- (6) List of all parties holding indirect ownership interests in the applicant as determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain, that equals 10 percent or more of the applicant, except

that if the ownership percentage for an interest in any link in the chain exceeds 50 percent or represents actual control, it shall be treated and reported as if it were a 100 percent interest; and

- (7) List of any FCC-regulated entity or applicant for an FCC license, in which the applicant or any of the parties identified in paragraphs (a)(1) through (a)(5) of this section, owns 10 percent or more of stock, whether voting or nonvoting, common or preferred. This list must include a description of each such entity's principal business and a description of each such entity's relationship to the applicant (e.g., Company A owns 10 percent of Company B (the applicant) and 10 percent of Company C, then Companies A and C must be listed on Company B's application, where C is an FCC licensee and/or license applicant).<sup>60</sup>

The prospective subgrantee must provide a narrative and proof of which disclosure requirement would apply between (3)-(5) (e.g., proof of ownership regarding limited partnership, general partnership, or limited liability company).

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

BroadbandOhio will assess the received information to determine that they meet ownership disclosure requirements by evaluating whether the prospective subgrantee has provided full and sufficient proof for each requirement. Applicants will be screened for submitting all required supporting document for this requirement. This will include the proof of ownership to determine which disclosure requirement would apply.

**(Req 2.4.17):** Description of how BroadbandOhio will ensure any prospective subgrantee deploying network facilities meets the minimum qualifications for providing information on other public funding as outlined on pages 75 – 76 of the BEAD NOFO, including:

- a. How it will require prospective subgrantees to disclose for itself and for its affiliates, any application the subgrantee or its affiliates have submitted or plan to submit, and every broadband deployment project that the subgrantee or its

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<sup>60</sup> 47 C.F.R. § 1.2112(a)(1)-(7), Code of Federal Regulations, <https://www.ecfr.gov/current/title-47/chapter-I/subchapter-A/part-1/subpart-O/subject-group-ECFR7e6f5a3219dc9cd/section-1.2112>

affiliates are undertaking or have committed to undertake at the time of the application using public funds.

- b. At a minimum, BroadbandOhio shall require the disclosure, for each broadband deployment project, of: (a) the speed and latency of the broadband service to be provided (as measured and/or reported under the applicable rules), (b) the geographic area to be covered, (c) the number of unserved and underserved locations committed to serve (or, if the commitment is to serve a percentage of locations within the specified geographic area, the relevant percentage), (d) the amount of public funding to be used, (e) the cost of service to the consumer, and (f) the matching commitment, if any, provided by the subgrantee or its affiliates.

**For (a)**, BroadbandOhio will require all prospective subgrantees to disclose, for itself and its affiliates, any broadband deployment projects using public funds that they have submitted an application for, plan to submit an application for, are undertaking, or have committed to undertake at the time of the application. Specifically, applicants will be asked to confirm whether they plan to or are currently participating in projects using funds provided under: (i) the Families First Coronavirus Response Act (Public Law 116- 127; 134 Stat. 178); (ii) the CARES Act (Public Law 116-136; 134 Stat. 281), (iii) the Consolidated Appropriations Act, 2021 (Public Law 116-260; 134 Stat. 1182); (iv) the American Rescue Plan of 2021 (Public Law 117-2; 135 Stat. 4); (v) any federal Universal Service Fund high-cost program (e.g., RDOF, CAF), or (vi) any BroadbandOhio or local universal service or broadband deployment funding program (and, if so, the name of the funding vehicle).

**For (b)**, BroadbandOhio will require all prospective subgrantees to disclose, for each project, the following at a minimum: (i) the speed and latency of the broadband service to be provided (as measured and/or reported under the applicable rules), (ii) the geographic area to be covered, (iii) the number of unserved and underserved locations (including any CAIs, if applicable) committed to serve (or, if the commitment is to serve a percentage of locations within the specified geographic area, the relevant percentage), (iv) the amount of public funding to be used, (v) the cost of service to the consumer, and (vi) the matching commitment, if any, provided by the subgrantee or its affiliates. BroadbandOhio intends to cross-check this information with

available information (e.g., NTIA Eligible Entity Planning Toolkit, existing federal enforceable commitments) and will provide additional guidance on how this information should be submitted by the applicant to help streamline this cross-checking process.

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**).

BroadbandOhio will assess the received information to determine that they meet requirements for providing information on other public funding through evaluating whether the prospective subgrantee has provided full and sufficient information for each requirement. Applicants will be screened for submitting all required supporting document for this requirement. This information will then be cross-checked with available information (e.g., NTIA Eligible Entity Planning Toolkit, existing federal enforceable commitments) to confirm validity of the provided information. applicants submitting false information will be disqualified if not properly rectified.

# Non-Deployment Subgrantee Selection (Requirement 9)

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(Req 2.5.1) If applicable, a description of a fair, open, and competitive subgrantee selection process for eligible non-deployment activities, including the objective means, or process by which objective means will be developed, for selecting subgrantees for eligible non-deployment activities.

BroadbandOhio does not anticipate having surplus BEAD funds for non-deployment activities, and consequently has not developed a plan for selecting subgrantees for eligible non-deployment activities.

(Req 2.5.2) Description of BroadbandOhio's plan for the following:

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

BroadbandOhio does not anticipate having surplus BEAD funds for non-deployment activities, and consequently has not developed a plan for selecting subgrantees for eligible non-deployment activities.

[\(Req 2.5.3\) Description of the BroadbandOhio’s plan to ensure coverage to all unserved and underserved locations prior to allocating funding to non-deployment activities.](#)

BroadbandOhio does not anticipate having surplus BEAD funds for non-deployment activities, and consequently has not developed a plan for selecting subgrantees for eligible non-deployment activities.

[\(Req 2.5.4\): Description of how BroadbandOhio will ensure prospective subgrantees meet the general qualifications outlined on pages 71 – 72 of the BEAD NOFO.](#)

BroadbandOhio does not anticipate having surplus BEAD funds for non-deployment activities, and consequently has not developed a plan for selecting subgrantees for eligible non-deployment activities.

# Eligible Entity Implementation Activities (Requirement 10)

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(Req 2.6.1): Description of initiatives BroadbandOhio proposes to implement as the recipient without making a subgrant, and why it proposes that approach.

BroadbandOhio plans to directly implement workforce readiness initiatives, as well as other programmatic and administrative activities related to the challenge and subgrantee selection execution and administrative processes without making a subgrant.

A description of the initiative and rationale for proposing this approach is included below.

## Description of initiatives

**Workforce readiness.** the Governor’s Office of Workforce Transformation (OWT) developed Ohio’s Broadband & 5G Workforce Strategy (“Strategy”) in partnership with BroadbandOhio to address the projected workforce shortage for deploying broadband and 5G technology in the state of Ohio. The Strategy contains three key elements: (1) increasing career awareness in the telecommunications industry, (2) deploying and scaling education and training programs to meet the workforce demand, and (3) capitalizing on state and federal funding to finance the strategy to allow Ohioans to go through relevant education and training programs at low- or no-cost.

The Strategy was announced in September 2021. As part of the Strategy, Ohio created the Ohio Broadband & 5G Sector Partnership (“Sector Partnership”) to manage implementation, which is housed at the Ohio State University (“OSU”) and is industry-led by the Wireless Infrastructure Association (“WIA”). To date, Ohio has launched 11 education and training programs, with more currently in development. These programs have included 5 Certified Fiber Optic Technician programs, 2 5G Readiness programs, 3 Tower Technician programs, and a Broadband

Infrastructure Training Program. Additionally, in the summer of 2023, six regional nodes have been launched in each JobsOhio region to lead the regional implementation of the Strategy.<sup>61</sup>

Across all 11 programs, over 400 Ohioans (including active participants) have **enrolled**, and over 250 students have **completed** their training to date and have **passed their third-party certification exam**.

Over the five-year span of BEAD funding to deploy broadband in Ohio, OWT and BroadbandOhio propose leveraging \$50 million in funding to develop the required workforce for broadband expansion. This funding will be used to:

- Sustain the Sector Partnership through 2028
- Sustain the six regional nodes that have been selected for each JobsOhio region through 2028
- Fund education and workforce initiatives across Ohio, including: career awareness and internships for K12 and postsecondary students and new programs at career centers, community colleges, and universities
- Develop additional certificate programs at career centers and Ohio Technical Centers
- Develop an associate degree for community college
- Develop a major and minor at universities
- Expand pre-apprenticeship and apprenticeship programs
- Provide last-dollar tuition assistance so programs remain low- or no-cost
- Support instructor and faculty recruitment/retention so programs can run consistent cohorts
- Fund dedicated career services so program graduates seamlessly transition to employment
- Fund marketing and awareness initiatives to drive enrollment in education/training programs.

**Other programmatic and administrative activities.** BroadbandOhio will run its Challenge Process as described in Initial Proposal Volume I, and its Subgrantee Selection Process as described in Section 2.4 in Initial Proposal Volume II. The state will run a BEAD-compliant subgrantee process, which will inform the use of BEAD funding on deployment activities. BroadbandOhio will oversee key grant application processing, program management, and compliance activities, leveraging a

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<sup>61</sup> [https://www.ohiosap.org/aws/OSAE/pt/sd/news\\_article/523779/\\_blank/layout\\_details/false](https://www.ohiosap.org/aws/OSAE/pt/sd/news_article/523779/_blank/layout_details/false)

combination of internal staff, staff augmentation, and contractor support as needed, to ensure that administrative and programmatic costs are applied appropriately and efficiently.

### **The rationale for proposing this approach**

**Workforce readiness.** BroadbandOhio believes upfront efforts toward developing a skilled, available broadband workforce within Ohio will help lower barriers that prevent providers from participating in BEAD by preempting workforce-related roadblocks. BroadbandOhio anticipates these measures to help ensure greater participation and interest by providers, raise competition for BEAD funds, and thereby help ensure higher-quality bids – all of which BroadbandOhio believes will contribute to a more efficient BEAD fund outlay.

The specific rationale for why workforce availability has been identified as a potential roadblock for provider participation, and why BroadbandOhio believes direct implementation of this effort is critical, is outlined below:

**Currently emerging gaps in broadband workforce availability in Ohio, which threaten the BEAD timelines.** In Ohio, it is projected that the state will need over 2,500 workers to expand broadband and over 26,000 workers to deploy 5G technology through 2030. The broadband and 5G industry (telecommunications) are facing a widening skills gap due to a lack of standardized training programs and professional degree programs. The aging workforce and high turnover rates are contributing to a dwindling workforce in the industry. The constant evolution of technologies and lack of industry-academia partnerships pose significant challenges. The strategy hopes to implement countervailing efforts to address these gaps.

Listening session participants described the importance of addressing workforce readiness issues. During BEAD-SDOP listening sessions conducted during the preparation of the Five-Year Action Plan, ISPs noted that labor is increasingly difficult to find. While training programs could help mitigate this labor gap, a listening session participant noted that workforce training programs for broadband deployment-related jobs may face attrition due to slow ramp-up in salary and the labor-intensive nature of the job compared to other jobs with similar entry wage levels.

Barriers to broadband deployment were highlighted by stakeholders as a key area to be addressed by BroadbandOhio. During the BEAD-SDOP stakeholder engagement and during the workforce strategy development led by the Governor’s Office of Workforce Transformation, ISPs highlighted the need for the state’s attention and mitigation efforts toward workforce readiness:

- Broadband & 5G Workforce Strategy development. The strategy is fundamentally grounded on areas that stakeholders have identified as those they believed the state should concentrate its efforts on to help address broadband workforce challenges. By implementing the workforce strategy directly, BroadbandOhio would thus help address key areas that stakeholders have identified as focus areas for the state.

For instance, to ensure Ohio conducted a thorough analysis, the Governor's Office of Workforce Transformation and BroadbandOhio engaged stakeholders across the broadband and 5G spectrum from telecommunications, construction subcontracting, industry associations, trade groups, rural electric co-ops, nonprofits, career-technical education providers, Ohio Technical Centers, and two- and four-year colleges and universities. Over four weeks, the state used 10 stakeholder meetings to ensure it was accurately tracking the preliminary issues identified, and to solicit feedback on what Ohio should do to address the broadband and 5G workforce shortage. The meetings created positive collaboration between industry and education on identifying ways to build the broadband workforce needed in Ohio.<sup>62</sup>

The strategy additionally leveraged the Federal Communications Commission (FCC) Broadband Deployment Advisory Committee (BDAC)’s report that examined the broadband industry's workforce challenges in 2019.<sup>63</sup> The BDAC report was an extensive, 15-month process that looked at the broadband industry's workforce challenges at the national level. The Co-Chair of the FCC BDAC report, Dr. Rikin Thakker, who then served as the Chief Technology Officer at the Wireless Infrastructure Association (WIA), was an active participant in Ohio's broadband workforce analysis, using his national expertise to assist the state in identifying the key challenges for Ohio to address. The BDAC report and discussions with stakeholders clarified the need for the state to focus on a few key issue areas, which serve as the 3 pillars of the Strategy: broadband industry career awareness, education and training programs, and awareness of state and federal funding for training programs.<sup>64</sup>

- BEAD-SDOP survey. ISP survey results additionally showed that workforce readiness is a key area that ISPs want additional support from BroadbandOhio. When asked about the main types of support needed from BroadbandOhio to continue increasing access to affordable internet, internet capable devices, and digital skills, approximately 40%

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<sup>62</sup> [Strengthening Ohio's Broadband & 5G Workforce](#), page 4

<sup>63</sup> <https://www.fcc.gov/sites/default/files/bdac-job-skills-training-opportunities-approved-rec-10292020.pdf>

<sup>64</sup> [Strengthening Ohio's Broadband & 5G Workforce](#), page 4

of the 21 ISP respondents cited “ensuring skilled workforce for broadband roles” as a key area, second only to “increasing funding/grants for broadband deployment.”<sup>65</sup>

**Other programmatic and administrative activities.** BroadbandOhio has relevant experience implementing statewide broadband funding rounds through its ORBEG program, and will leverage this knowledge toward efficiently undertaking programmatic and administrative activities for successful BEAD implementation. Funds will be needed to ensure efficient, effective, and compliant execution given the large scale, scope, extensive requirements – all within the required timelines.

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<sup>65</sup> BroadbandOhio Internet Access Survey, as of July 11, 2023 (Respondent N = 21). Question: “What are the main types of support the ISP needs from BroadbandOhio to continue increasing access to affordable internet, internet capable devices, and digital skills? Select up to three.”

# Labor Standards and Protection (Requirement 11)

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(Req 2.7.1) Description of the specific information that prospective subgrantees will be required to provide in their applications and how BroadbandOhio will weigh that information in its competitive subgrantee selection processes. Information from prospective subgrantees must demonstrate the following and must include information about contractors and subcontractors:

- a. Prospective subgrantees' record of past compliance with federal labor and employment laws, which:
  - i. Must address information on these entities' compliance with federal labor and employment laws on broadband deployment projects in the last three years;
  - ii. Should include a certification from an Officer/Director-level employee (or equivalent) of the prospective subgrantee evidencing consistent past compliance with federal labor and employment laws by the subgrantee, as well as all contractors and subcontractors; and
  - iii. Should include written confirmation that the prospective subgrantee discloses any instances in which it or its contractors or subcontractors have been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws for the preceding three years.
- b. Prospective subgrantees' plans for ensuring compliance with federal labor and employment laws, which must address the following:
  - i. How the prospective subgrantee will ensure compliance in its own labor and employment practices, as well as that of its contractors and subcontractors, including:

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

As part of the requirements for prospective subgrantees to demonstrate their ability to comply with relevant laws (pre-qualifications for receiving a subgrant), BroadbandOhio will require prospective subgrantees to submit the following:

- Record of past compliance with federal labor and employment laws, which must include information on these entities' compliance with federal labor and employment laws on broadband deployment projects in the last five years.
- Certification from an officer/director-level employee (or equivalent) of the prospective subgrantee evidencing that the prospective subgrantee, as well as all contractors and subcontractors, has consistently complied with federal labor and employment laws.
- Written confirmation that the prospective subgrantee has disclosed any instances in which it or its contractors or subcontractors have been found to have violated laws such as the Occupational Safety and Health Act, the Fair Labor Standards Act, or any other applicable labor and employment laws within the preceding five years.

In addition to the above, BroadbandOhio will require:

- A record and explanation of Occupational Safety and Health Administration violations within the five years preceding the application date.
- A record and explanation of de-certification for state government procurement by any state in the United States within the five years preceding the application date.

This measure will additionally help evaluate the prospective subgrantee's ability to carry out funded activities competently and in compliance with all applicable federal, state, territorial, and local laws.

BroadbandOhio will also require prospective subgrantees to submit plans for ensuring compliance with federal labor and employment laws, which must include the following:

- Information on applicable wage scales and wage and overtime payment practices for each class of employees expected to be involved directly in the physical construction

of the broadband network.

- How the subgrantee will establish workplace safety committees that are authorized to raise health and safety concerns related to the delivery of deployment projects and with whom management may meet upon reasonable request.

All prospective subgrantees will be required to submit the information above as part of the application packet (attached as **2.4.11.1 Optional Attachment**). Without meeting this requirement, the prospective subgrantee will not be able to participate in the subgrantee process.

(Req 2.7.2) Description of whether BroadbandOhio will make mandatory for all subgrantees (including contractors and subcontractors) any of the following and, if required, how it will incorporate them into binding legal commitments in the subgrants it makes:

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

- i. Taking steps to prevent the misclassification of workers.

BroadbandOhio does not intend to make any of the above labor standards and protections mandatory for subgrantees.

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# Workforce Readiness (Requirement 12)

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**(Req 2.8.1):** Description of how BroadbandOhio and their subgrantees will advance equitable workforce development and job quality objectives to develop a skilled, diverse workforce, including (from page 59 of the BEAD NOFO):

- a. A description of how BroadbandOhio will ensure that subgrantees support the development and use of a highly skilled workforce capable of carrying out work in a manner that is safe and effective;
- b. A description of how BroadbandOhio will develop and promote sector-based partnerships among employers, education and training providers, the public workforce system, unions and worker organizations, and community-based organizations that provide relevant training and wrap-around services to support workers to access and complete training (such as child care, transportation, mentorship, etc.), to attract, train, retain, or transition to meet local workforce needs and increase high-quality job opportunities;
- c. A description of how BroadbandOhio will plan to create equitable on-ramps into broadband-related jobs, maintain job quality for new and incumbent workers engaged in the sector; and continually engage with labor organizations and community-based organizations to maintain worker voice throughout the planning and implementation process; and
- d. A description of how BroadbandOhio will ensure that the job opportunities created by the BEAD Program and other broadband funding programs are available to a diverse pool of workers.

Under the leadership of and in partnership with the Ohio Governor’s Office of Workforce Transformation (OWT), BroadbandOhio plans to advance equitable workforce development and

job quality objectives to develop a skilled, diverse workforce through the implementation of the “Strengthening Ohio’s Broadband and 5G Workforce Strategy” (“Strategy”). Released in September 2021, the strategy calls for an Ohio Broadband and 5G Sector Partnership (“Sector Partnership”) to lead efforts to increase awareness of broadband industry careers, establish and scale training and education programs, and capitalize on state and federal funding programs to finance the work. The full write-up of the Strategy is available [here](#).

Below is a description of how the Strategy specifically addresses the four requirements outlined above.

**a. Use of highly skilled workforce:** Description of how BroadbandOhio will ensure that subgrantees support the development and use of a highly skilled workforce capable of carrying out work in a manner that is safe and effective.

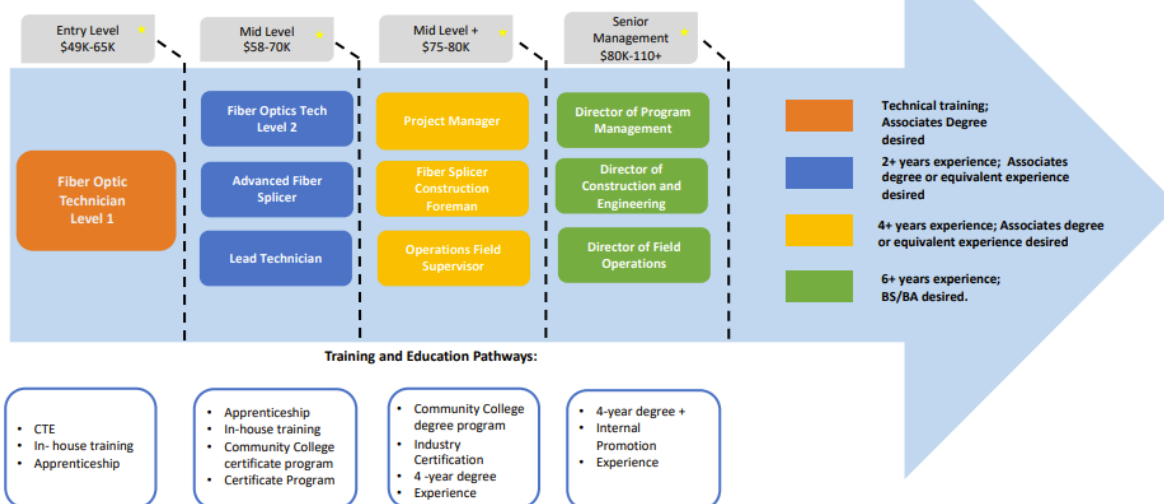
The “Strengthening Ohio’s Broadband and 5G Workforce Strategy” outlines the State of Ohio’s strategy for ensuring the availability of a highly skilled workforce. The strategy addresses three key objectives toward achieving this goal:

**Raising awareness of broadband industry careers by exposing middle-school and high-school students to the industry through curriculum and internships.** To increase awareness of broadband industry careers, the Strategy leverages curriculum development, internships, and opportunities for pre-apprenticeships and apprenticeships. Along the educational continuum, a career pathway model will be created to show stakeholders the various entry and exit points of broadband careers. 7 career pathways have been designed to date, including paths for Fiber Optics Technicians, Telecom Tower Technicians, Radio Frequency (RF) Engineers, Utility Construction Installers, Utility Locators, Small Cell Technicians, and In-Building Wireless Technicians. Below includes an example career pathway for the Fiber Optics Technician Career Pathway.

**Figure 1. Example Career Pathway Model: Fiber Optics Technician Career Pathway**



# Fiber Optics Technician Career Pathway




Various curricula and work opportunities are being developed to help students explore career paths within the industry and earn credit for high school graduation and their postsecondary education. These efforts will inform students about broadband occupations while equipping them with the essential skills necessary to succeed in those occupations.<sup>66</sup>





Developing and supporting more education and training programs to educate and train Ohioans. Current institutions and training providers have been identified to be partners with the telecom industry to identify plug-and-play, non-degree curriculum models that can be implemented quickly at these organizations to start addressing the labor crunch. To date, 11 training programs have been created as a part of the workforce strategy.


Figure 2. Current Program Map with the 11 training programs throughout the state


<sup>66</sup> “Strengthening Ohio’s Broadband & 5G Workforce,” BroadbandOhio.



**Programs started as a result of Ohio's Broadband & 5G Workforce Strategy**

-  5G Readiness Program
-  Fiber Optic Technician
-  Telecommunications Tower Technician Program
-  Broadband Infrastructure Training Program

 **JON HUSTED**  
LT. GOVERNOR OF OHIO

 Governor's Office of Workforce Transformation **BroadbandOhio**

In addition, the “Broadband and 5G Connectivity Center” (“Connectivity Center”) has been established and housed at The Ohio State University, to execute the statewide strategy set by the Sector Partnership.<sup>67</sup> This is where secondary and postsecondary education stakeholders, in partnership with industry, is mapping out the process to create a seamless ecosystem of curriculum and training programs geared for careers in the broadband and 5G industry that are implemented strategically at the smaller nodes, starting from mapping all the postsecondary programs in Ohio and identifying which could be quickly modified to integrate plug-and-play programs developed or distributed by the Connectivity Center. In the future, the Connectivity Center will additionally develop and implement industry-centered registered apprenticeships, majors and degree programs geared towards the broadband and 5G industry.<sup>68</sup>

Capitalizing on state and federal funding programs, like TechCred and WIOA, to help finance the education and training that will bring to market the talent needed for the broadband and 5G industry in Ohio. To enable and scale workforce development efforts, Ohio is leveraging existing funding vehicles such as TechCred and Individual Microcredential Assistance Program (IMAP).

<sup>67</sup> <https://5g-oh.osu.edu/>

<sup>68</sup> “[Strengthening Ohio’s Broadband & 5G Workforce](#),” BroadbandOhio.

These programs will be expanded to build the skills of incumbent workers. As training programs are created, local workforce development boards will engage with employers in their area to ascertain and meet their talent needs. The OWT will continue to work closely with the industry to ensure that employers are aware of TechCred and that they are connected with those who have completed IMAP. This effort will also involve cooperating with incumbent industry players and their associations to identify industry subcontractors and other ancillary employers who may benefit from learning about these programs.<sup>69</sup>

To ensure that subgrantees support the development and use of a skilled workforce capable of carrying out BEAD-related work safely and effectively, BroadbandOhio will require all subgrantees to participate in the Broadband and 5G Sector Partnership, a key component of the “Strengthening Ohio’s Broadband and 5G Workforce Strategy.” This requirement will be part of the conditions for the subgrantee’s certification of BEAD project completion. Subgrantees must fulfill this requirement to receive their final reimbursement of BEAD funds upon project completion.

Subgrantees will additionally be scored by their binding commitment to hire from qualified apprenticeship programs, including those directly from the Strategy, where each percentage point as share of the project’s workforce will be awarded a point. This scoring approach is intended to further incentivize subgrantees to leverage the Workforce Strategy and its effort toward providing an appropriately skilled and credentialed workforce.

**b. Participation in partnerships:** Description of how BroadbandOhio will develop and promote sector-based partnerships among employers, education and training providers, the public workforce system, unions and worker organizations, and community-based organizations that provide relevant training (including through Registered Apprenticeships and pre-apprenticeships that are integrated with Registered Apprenticeships, or other quality work-based learning programs) and provide wrap-around services to support workers to access and complete

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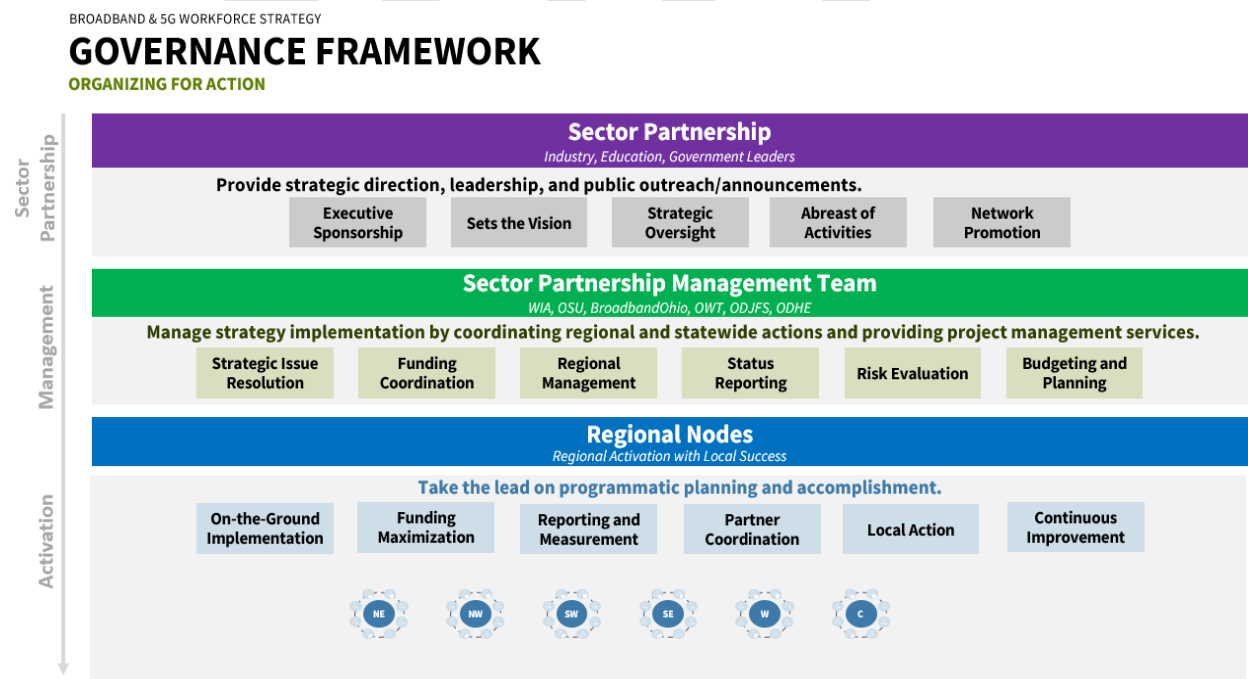
<sup>69</sup> [“Strengthening Ohio’s Broadband & 5G Workforce,”](#) BroadbandOhio.

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

Through the “Strengthening Ohio’s Broadband and 5G Workforce Strategy,” BroadbandOhio has formed sector-based partnerships to provide relevant training and wrap-around services and to attract and develop the needed workforce for the BEAD program.

Specifically, the Strategy has developed **three key partnerships** that form the Strategy’s governance structure: (i) the Broadband and 5G Sector Partnership (“Sector Partnership”), (ii) the Sector Partnership Management Team, and (iii) six regional hubs (“nodes”). Additionally, the Strategy supports **partnerships with industry players** to develop and expand training programs that equip the workforce with relevant skills via pre-apprenticeship and apprenticeship programs.

Figure 3. Governance framework for “Strengthening Ohio’s Broadband and 5G Workforce Strategy”



- Sector Partnership: The Sector Partnership serves as a central convening entity for implementing the statewide strategy to produce the right talent, at the right capacity,

at the right time.<sup>70</sup> As the lead governing entity of the Strategy, the Sector Partnership is responsible for leadership, strategic direction, industry and education feedback, and public outreach and communication. The Sector Partnership comprises industry, education, and government leaders who provide oversight and feedback for the implementation of the goals outlined in the Strategy. Current participants include:

- Industry: Fiber Broadband Association (FBA), Horizon, NATE: The Communications Infrastructure Contractors Association, NTCA – The Rural Broadband Association, Ohio Cable Telecom Association (OCTA), Ohio Telecom Association (OTA), Ohio Wireless Association (OWA), Power & Communication Contractors Association (PCCA), Team Fishel, TRC Companies, Inc., and USTelecom.<sup>71</sup>
- Education: Association of Independent Colleges and Universities of Ohio (AICUO), Foundation for Excellence in Education (ExcelinEd), Inter-University Council (IUC), Ohio ACTE, Ohio Association of Career Technical Superintendents (OACTS), Ohio Association of Community Colleges (OACC), Ohio Excels, and The Management Council (MCOECN).<sup>72</sup>
- Government: BroadbandOhio, Governor’s Office of Workforce Transformation (OWT), JobsOhio, Ohio Department of Education (ODE), Ohio Department of Higher Education (ODHE), Ohio Department of Job and Family Services (ODJFS), Ohio Department of Rehabilitation and Corrections (ODRC), and Ohio Department of Veteran Services (ODVS).<sup>73</sup>

The Sector Partnership is housed at The Ohio State University (OSU) and is led by the Wireless Infrastructure Association (WIA) as the industry intermediary.<sup>74</sup> OSU administers the Sector Partnership and leads the design and distribution of the curriculum program in cooperation with the Sector Partnership. WIA provides insight into industry needs and the gap in telecommunications skills while also ensuring that the Sector Partnership’s work remains aligned with the telecommunications industry. The Sector Partnership works to design and distribute curricula and training programs across the state and promotes career awareness to supply the industry with a skilled workforce.

- Sector Partnership Management Team: Operating as the second level of governance, the Sector Partnership Management Team oversees the day-to-day execution of implementation efforts by coordinating actions regionally and statewide. It provides project management services as well as fiscal administration and oversight. The Management Team consists of staff from the Wireless Infrastructure Association, The

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<sup>70</sup> [“Strengthening Ohio’s Broadband and 5G Workforce Strategy,”](#) page 7.

<sup>71</sup> [“Sector Partnership,”](#) The Ohio State University

<sup>72</sup> [“Sector Partnership,”](#) The Ohio State University

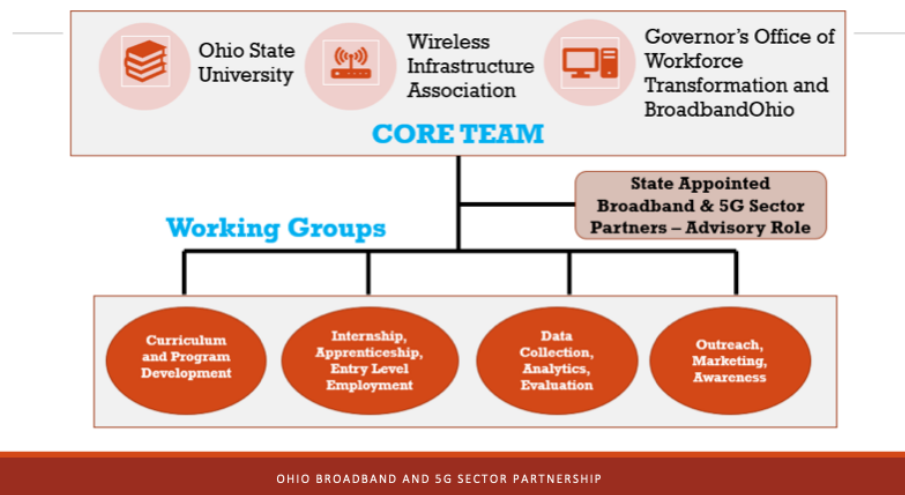
<sup>73</sup> [“Sector Partnership,”](#) The Ohio State University

<sup>74</sup> [“Husted Announces Grant Programs to Support Ohio’s Broadband & 5G Workforce,”](#) January 24, 2023

Ohio State University, BroadbandOhio, the Governor’s Office of Workforce Transformation, the Ohio Department of Job and Family Services, and the Ohio Department of Higher Education. It is further divided into 4 working groups that oversee the completion of specific deliverables approved by the Sector Partnership: (i) Curriculum and Program Development, (ii) Outreach, Marketing and Awareness, (iii) Internship, Apprenticeship, and Entry-Level Employment, and (iv) Data Collection, Analytics, and Evaluation.

Figure 4. Ohio Broadband and 5G Workforce Strategy Working Groups

## Ohio Broadband and 5G Sector Partnership



The Sector Partnership Management Team plays a pivotal role in the successful implementation of strategies. It eliminates barriers for the activation teams, coordinates and prioritizes various initiatives, and oversees the implementation of regional and statewide strategies. This team is a crucial link between the Sector Partnership and the regional nodes and supports the development of plans to resolve strategic issues by providing funding and technical assistance and by prioritizing initiatives.

- Six regional hubs (“nodes”): Situated at the third level of governance, the regional hubs implement the Strategy’s initiatives on a regional scale. The regional nodes serve as practical executors of initiatives that focus on specific regions. As such, they oversee these initiatives’ daily operational tasks and mobilization efforts. This responsibility includes executing education and training programs, managing recruitment and outreach activities, and providing wrap-around services and

comprehensive reports on the risks, dependencies, and overall progress of these initiatives.

The regional-node structure includes four key entities that include education and training providers, the public workforce system, and community-based organizations. These entities oversee and manage each region:

- **Four-year university:** A university in each regional node serves as the fiscal agent for the grant and manages sub-awards, processing, and data collection. The four-year university may also host relevant programs if needed. It assists in setting each project’s vision, goals, deliverables, etc., and ensures that deliverables are completed on time and in budget.
  - **Two-year community college:** A two-year community college in each regional hub serves as the “implementation partner” by hosting program(s), identifying partner institutions or training providers to host relevant programs, helping partner institutions to start programs, and assisting in recruitment, enrollment, and completion. Additionally, this entity helps partner institutions to resolve any issues that may arise, such as difficulties in finding qualified instructors or program participants.
  - **Local Workforce Development Board:** This entity fulfills technical requirements related to eligibility and data entry. It also assists in recruiting potential workers in the relevant JobsOhio region, connecting them to the right training program, and building relationships with local employers who can offer entry-level employment to program graduates. Additionally, this entity maximizes braided funding so that Ohioans may undergo training at low or no cost.
  - **Community Action Agency:** This agency helps to recruit members of underrepresented groups into relevant training programs and provides wrap-around support and services for individuals entering training programs.
  - **Other partners (optional):** Additional partners may be enlisted to provide support and wrap-around services, remove barriers, conduct outreach, and recruit trainees as needed in a region.
- Programmatic partnerships with industry players: Beyond the three partnerships supporting the Strategy’s governance, the Strategy cooperates with industry players in developing and expanding pre-apprenticeship and apprenticeship programs that equip the workforce with relevant skills, such as:
    - Apprenticeship and pre-apprenticeship programs with WIA via TIRAP: As described above, WIA hosts TIRAP as DOL’s contracted industry intermediary. As such, it works with telecommunications companies to expand registered apprenticeships.<sup>75</sup> WIA provides companies with the resources, guidance, and

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<sup>75</sup> <https://www.tirap.org/employers-get-started/>

support to improve and formalize their training programs, thereby expediting employers' adoption of registered apprenticeship and pre-apprenticeship programs and enabling them to offer a national credential through the DOL.

WIA has established TIRAP apprenticeships and pre-apprenticeships with employers in Ohio. Ten of these are existing pre-apprenticeship programs in Ohio that have adopted the TIRAP program. The WIA is seeking to increase the number of TIRAP participants as part of the Strategy. Efforts to prepare additional employers for TIRAP apprenticeship programs are underway. Through TIRAP, WIA will expand the broadband industry's participation in the Strategy's apprenticeship program.

**c. Equitable on-ramps into broadband jobs:** Description of how BroadbandOhio will create equitable on-ramps into broadband-related jobs by removing barriers to entry, and by maintaining job quality and worker voice

As part of implementation efforts, the Strategy has established regional hubs to ensure engagement with local stakeholders such as local workforce development boards, community action agencies, and community colleges, as described above.

Additionally, the Strategy includes various workforce recruitment channels that are dedicated to providing equitable access and reducing entry barriers to broadband-related jobs, including:

- Second-Chance hiring program pilot: The Strategy's Tower Technician Training program is working jointly with OWT and the Ohio Department of Rehabilitation and Correction (ODRC) to engage employer-partners to train soon-to-be-released inmates for jobs in the telecommunications industry. These jobs will be specific to broadband expansion efforts. The Tower Technician Training program is part of Ohio's Broadband and 5G Workforce Strategy and is provided through OWT and BroadbandOhio in collaboration with NATE: The Communications Infrastructure Contractors Association and ODRC. The program trains Ohioans to fill critically needed tower technician roles and encourages companies across the state to give a second chance to an untapped pool of potential workers: formerly incarcerated Ohioans.<sup>76</sup>

Through this pilot launched in May 2023, the soon-to-be-released inmates can become members of a skilled workforce that is ready to build, maintain, and repair the broadband

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<sup>76</sup> ["Governor DeWine, Lt. Governor Husted Announce Opportunities for Second-Chance Employees,"](#) State of Ohio Office of the Governor, May 25, 2023

and 5G networks that Ohioans use every day. At the end of May, eight individuals from the Mansfield and Richland Correctional Institutions have started to receive tower technician training from North Central State College, followed by a work-release program with an employee partner. The graduates of the program will then have the chance to interview with employer-partners who can place them in tower technician roles in Ohio upon release. To help close the talent gap and to ensure that Ohio's 5G network is deployed quickly and efficiently, AT&T is encouraging its contractors in Ohio to hire restored citizens who complete this program.<sup>77</sup>

- Second-Chance hiring guidebook for navigating Master Service Agreements (MSA) in telecommunications: The Strategy includes the development of a guidebook to help telecommunication suppliers to remain in compliance with their MSAs while hiring second-chance employees into the telecommunication industry. Incarcerated individuals often possess the skills and work ethic to meet the demand for workers in the telecommunications industry, and companies that hire restored citizens qualify for federal tax credits and other incentives. However, some telecommunications companies and their suppliers avoid hiring restored citizens due to personnel restrictions in some internet service provider and cellular carrier MSAs. These restrictions prohibit individuals with certain convictions from performing work at telecommunications worksites. The language used in these restrictions is often vague, inconsistent from company to company, and rife with terms not defined in law, making it difficult for suppliers to discern which workers with a criminal history, if any, may be deployed to a given worksite.

To address vague restrictions listed in MSAs, the Strategy's guidebook lists specific convictions that legally require the provision of additional details for telecommunication suppliers during their hiring process. The guidebook helps employers to understand and apply these terms in compliance with the language of their contract while also recruiting and hiring restored citizens whose convictions are not barred by the MSA.

The pilot program's targeted efforts to recruit and train formerly incarcerated individuals, along with partnerships with industry incumbents to support second-chance hiring, will lower barriers to entry for covered populations—that is, formerly incarcerated Ohioans—so they may embark on broadband-related careers.

- Involvement of community action agencies in regional nodes: Community action agencies (CAAs) represent one of the four entities within regional nodes. CAAs work to alleviate poverty and empower low-income families in their communities.<sup>78</sup> For over 55 years, CAAs have provided the tools to help people move from poverty to self-sufficiency. They have done so at the local level to ensure that the solutions work for

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<sup>77</sup> ["Governor DeWine, Lt. Governor Husted Announce Opportunities for Second-Chance Employees,"](#) State of Ohio Office of the Governor, May 25, 2023

<sup>78</sup> ["About Community Action,"](#) Ohio Association of Community Action Agencies.

local needs.<sup>79</sup> These agencies serve low-income children, families, and senior citizens using a holistic approach that assists specific families and situations rather than prescribing a one-size-fits-all approach.<sup>80</sup> CAAs provide connections to job training opportunities, GED preparation courses, and vocational education programs, as well as a range of services addressing poverty-related problems. Their services include income management, credit counseling, entrepreneurial development, small business incubators, domestic violence crisis assistance, family development programs, parenting classes, food pantries, and emergency shelters for low-income housing development and community revitalization projects.<sup>81</sup>

As part of a regional node, CAAs provide recruitment support to enroll under-represented individuals into relevant training programs and provide wrap-around support and services for eligible individuals entering training programs. CAAs' efforts as part of the Strategy include offering low-income Ohioans access to broadband-related careers, providing wrap-around services, and targeting low-income Ohioans for recruitment, with the aim of facilitating entry into broadband-related jobs via equitable on-ramps.

- Regional nodes' efforts to enable employment equity in line with QUEST fund requirements: The regional nodes described above are funded through Quality Jobs, Equity, Strategy, and Training (QUEST) funds, which are intended to support employment equity by enhancing the public workforce system's efforts to empower America's unemployed and underemployed workers through worker and business engagement, to elevate equity, and to connect jobseekers with high-quality jobs.<sup>82</sup>

As QUEST projects, regional nodes must prioritize services to individuals whose employment has been negatively impacted by the pandemic, including individuals from historically marginalized populations that have been disproportionately affected. For example:<sup>83</sup>

- The Request for Grant Applications (RFGA) for regional nodes required each selected regional node to recruit, enroll, and provide employment and training services (i.e., career services, training, support services, and work-based learning) to at least 100 QUEST-eligible participants during the project

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<sup>79</sup> ["About Community Action,"](#) Ohio Association of Community Action Agencies.

<sup>80</sup> ["About Community Action,"](#) Ohio Association of Community Action Agencies.

<sup>81</sup> ["About Community Action,"](#) Ohio Association of Community Action Agencies.

<sup>82</sup> "Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270," The Ohio Department of Job and Family Services, page 2.

<sup>83</sup> "Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270," The Ohio Department of Job and Family Services, page 2: "Examples of marginalized populations include, but are not limited to, groups excluded due to race, gender identity, sexual orientation, age, physical ability, language, and immigration status. Marginalization occurs due to unequal power relationships between social groups." Ibid, page 9: "The target population for this grant are: (a) Individuals temporarily or permanently laid off as a consequence of the COVID-19 pandemic disaster; (b) Dislocated workers as defined by the Workforce Innovation and Opportunity Act (WIOA) Section 3(15); (c) Long-term unemployed individuals, as defined by ODJFS; and (d) Self-employed individuals who became unemployed or significantly underemployed due to the COVID-19 pandemic disaster."

- period through September 30, 2024.<sup>84</sup>
- The RGFA requested information from applicants regarding planned activities that will prioritize services and outcomes for historically marginalized populations among QUEST-eligible participants.<sup>85</sup> Specifically, the RFGA required all applicants to include a narrative for the following, and all applicants were scored based on the quality of the answer for each:
    - Describe the applicant’s plan to increase the attainment of credentials and degrees in Ohio, especially among individuals from historically marginalized communities. The plan should consider the state’s goals to (i) increase attainment of industry-recognized credentials in K-12, and (ii) support adults’ attainment of industry-recognized credentials through programs such as TechCred and the Individual Microcredential Assistance Program (IMAP).
    - Describe how the applicant plans to ensure that consistent cohorts run at education/training programs started in the region; how the applicant plans to provide wrap-around services to support QUEST-eligible participants, individuals negatively impacted by the COVID-19 pandemic, and individuals from historically marginalized populations as they work to complete education/training programs; and how the applicant will provide support services to individuals who have completed the program as they seek employment with telecommunications employers.<sup>86</sup>

These efforts by regional nodes will help historically marginalized, covered populations to establish broadband-related careers via multiple on-ramp efforts that reduce barriers to entry, including targeted recruiting to raise awareness and wrap-around services.

#### d. Job availability to diverse worker pool: Description of how BroadbandOhio will ensure job opportunities created by broadband funding programs are available to a diverse pool of workers

Through the efforts described above, which aim to strengthen equitable employment opportunities and to lower barriers to entry into broadband-related jobs, BroadbandOhio and OWT will reach and develop a diverse pool of workers through the Strategy, particularly via its

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<sup>84</sup> “Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270,” The Ohio Department of Job and Family Services, pages 2 and 9.

<sup>85</sup> “Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270,” The Ohio Department of Job and Family Services, page 9.

<sup>86</sup> “Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270,” The Ohio Department of Job and Family Services, pages 10 and Attachment C (Technical Proposal Score Sheet).

Second-Chance Employee projects, the involvement of community action agencies in regional nodes, and regional nodes' efforts in conjunction with QUEST requirements. The Strategy's data-tracking methods for monitoring the status of Strategy implementation will provide ongoing visibility into Strategy projects' effectiveness in providing economic opportunities to historically marginalized, covered populations.

- Second-Chance hiring program pilot: The Strategy's Tower Technician Training program is working jointly with OWT and the Ohio Department of Rehabilitation and Correction (ODRC) to engage employer-partners in training soon-to-be-released inmates for telecommunications jobs that are specific to broadband expansion efforts. The Tower Technician Training program is part of Ohio's Broadband and 5G Workforce Strategy, which is implemented through OWT and BroadbandOhio in collaboration with NATE: The Communications Infrastructure Contractors Association and ODRC. This program trains Ohioans to fill critically needed tower technician roles and encourages companies across the state to tap into this pool of potential workers—thus giving a second chance to formerly incarcerated Ohioans.<sup>87</sup>

Through this pilot launched in May 2023, the soon-to-be-released inmates can become members of a skilled workforce that is ready to build, maintain, and repair the broadband and 5G networks that Ohioans use every day. At the end of May, eight individuals from the Mansfield and Richland Correctional Institutions have started to receive tower technician training from North Central State College, followed by a work-release program with an employer-partner. The graduates of the program will then have the chance to interview with employer-partners who can place them in tower technician roles in Ohio upon release. To help close the talent gap and ensure that Ohio's 5G network is deployed quickly and efficiently, AT&T is encouraging its contractors in Ohio to hire restored citizens who complete this program.<sup>88</sup>

The pilot program's targeted efforts to recruit and train formerly incarcerated individuals will help to diversify the BEAD project workforce and provide economic opportunities for covered populations, in line with BEAD objectives.

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<sup>87</sup> ["Governor DeWine, Lt. Governor Husted Announce Opportunities for Second-Chance Employees,"](#) State of Ohio Office of the Governor, May 25, 2023

<sup>88</sup> ["Governor DeWine, Lt. Governor Husted Announce Opportunities for Second-Chance Employees,"](#) State of Ohio Office of the Governor, May 25, 2023

- Second-Chance hiring guidebook for navigating telecommunications Master Service Agreements (MSA): The Strategy includes the development of a guidebook to help telecommunication suppliers to remain in compliance with their MSAs while hiring second-chance employees into the telecommunication industry. Incarcerated individuals often possess the skills and work ethic to meet the demand for workers in the telecommunications industry, and companies that hire restored citizens qualify for federal tax credits and other incentives. However, some telecommunications companies and their suppliers avoid hiring restored citizens due to personnel restrictions in some internet service provider and cellular carrier MSAs. These restrictions prohibit individuals with certain convictions from performing work at telecommunications worksites. The language used in these restrictions is often vague, inconsistent from company to company, and rife with terms not defined in law, making it difficult for suppliers to discern which workers with a criminal history, if any, may be deployed to a given worksite.

To address vague restrictions listed in MSAs, the Strategy’s guidebook lists specific convictions that legally require the provision of additional details for telecommunication suppliers during their hiring process. The guidebook helps employers to understand and apply these terms in compliance with the language of their contract while also recruiting and hiring restored citizens whose convictions are not barred by the MSA.

The guidebook’s efforts to support the recruitment of formerly incarcerated individuals by directly targeting a barrier to entry (i.e., hiring practices) will help to diversify the BEAD project workforce and provide economic opportunities for covered populations, in line with BEAD objectives.

- Role of community action agencies in regional nodes: Community action agencies (CAAs) represent one of the four entities within regional nodes. CAAs work to alleviate poverty and empower low-income families in their communities.<sup>89</sup> For over 55 years, CAAs have provided the tools to help people move from poverty to self-sufficiency. They have done so at the local level to ensure that the solutions work for local needs.<sup>90</sup> These agencies serve low-income children, families, and senior citizens using a holistic approach that assists specific families and situations rather than prescribing a one-size-fits-all approach.<sup>91</sup> CAAs provide connections to job training opportunities, GED preparation courses, and vocational education programs, as well as a range of services addressing poverty-related problems. Their services include income management, credit counseling, entrepreneurial development, small business incubators, domestic violence crisis assistance, family development programs, parenting classes, food pantries, and emergency shelters for low-income housing

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<sup>89</sup> “[About Community Action](#),” Ohio Association of Community Action Agencies.

<sup>90</sup> “[About Community Action](#),” Ohio Association of Community Action Agencies.

<sup>91</sup> “[About Community Action](#),” Ohio Association of Community Action Agencies.

development and community revitalization projects.<sup>92</sup>

As part of a regional node, CAAs provide recruitment support in efforts to enroll under-represented individuals in relevant training programs, as well as wrap-around support and services for eligible individuals who are entering training programs. CAAs' efforts as part of the Strategy and provision of targeted recruitment and wrap-around support help to enable covered populations (i.e., low-income Ohioans) to embark on broadband-related careers, in line with BEAD objectives.

- Regional node's efforts to enable employment equity, in line with QUEST fund requirements: The regional nodes described above are funded through Quality Jobs, Equity, Strategy, and Training (QUEST) funds, which are intended to support employment equity by enhancing the public workforce system's efforts to empower America's unemployed and underemployed workers through worker and business engagement, to elevate equity, and to connect jobseekers with high-quality jobs.<sup>93</sup>

As QUEST projects, regional nodes must prioritize services to individuals whose employment has been negatively impacted by the pandemic, including individuals from historically marginalized populations that have been disproportionately affected. For example:<sup>94</sup>

- The Request for Grant Applications (RFGA) for regional nodes required each selected regional node to recruit, enroll, and provide employment and training services (i.e., career services, training, support services, and work-based learning) to at least 100 QUEST-eligible participants during the project period through September 30, 2024.<sup>95</sup>
- The RFGA requested information from applicants regarding planned activities that will prioritize services and outcomes for historically marginalized populations among QUEST-eligible participants.<sup>96</sup> Specifically, the RFGA required all applicants to include a narrative for the following, and all applicants were scored based on the quality of

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<sup>92</sup> ["About Community Action,"](#) Ohio Association of Community Action Agencies.

<sup>93</sup> "Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270," The Ohio Department of Job and Family Services, page 2.

<sup>94</sup> "Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270," The Ohio Department of Job and Family Services, page 2: "Examples of marginalized populations include, but are not limited to, groups excluded due to race, gender identity, sexual orientation, age, physical ability, language, and immigration status. Marginalization occurs due to unequal power relationships between social groups." Ibid, page 9: "The target population for this grant are: (a) Individuals temporarily or permanently laid off as a consequence of the COVID-19 pandemic disaster; (b) Dislocated workers as defined by the Workforce Innovation and Opportunity Act (WIOA) Section 3(15); (c) Long-term unemployed individuals, as defined by ODJFS; and (d) Self-employed individuals who became unemployed or significantly underemployed due to the COVID-19 pandemic disaster."

<sup>95</sup> "Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270," The Ohio Department of Job and Family Services, pages 2 and 9.

<sup>96</sup> "Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270," The Ohio Department of Job and Family Services, page 9.

the answer for each:

- Describe the applicant’s plan to increase the attainment of credentials and degrees in Ohio, especially among individuals from historically marginalized communities. The plan should consider the state’s goals to (i) increase attainment of industry-recognized credentials in K-12, and (ii) support adults’ attainment of industry-recognized credentials through programs such as TechCred and the Individual Microcredential Assistance Program (IMAP).
- Describe how the applicant plans to ensure that consistent cohorts run at education/training programs started in the region; how the applicant plans to provide wrap-around services to support QUEST-eligible participants, individuals negatively impacted by the COVID-19 pandemic, and individuals from historically marginalized populations as they work to complete education/training programs; and how the applicant will provide support services to individuals who have completed the program as they seek employment with telecommunications employers.<sup>97</sup>
- These efforts by regional nodes will help to diversify the BEAD project workforce and broadband workforce in general by offering historically marginalized, covered populations support in accessing broadband-related careers, in line with BEAD objectives.
- Data-tracking and analytics efforts for Strategy implementation status monitoring. The Strategy includes plans to partner with the Ohio Education Research Center (OERC) team at the John Glenn College of Public Affairs to generate quarterly reports. These reports will be shared with the OWT and the Broadband & 5G (BB & 5G) Sector Partnership/Ohio State University (OSU) College of Engineering (COE) 5G-OH Connectivity Center leadership team. This partnership will combine program-level data with available statewide and regional labor market research—including surveys, direct employer engagement, and workforce data analytics—to monitor the impact of this initiative on workforce trends. Metrics will be developed to measure any changes in the available talent for critical occupations and the skill sets that are most in-demand among BB & 5G sector employers.

The quarterly reports, which will be generated for the purposes of improving the program and analyzing overall outcomes, may include the following fields: (i) provider; (ii) program; (iii) credential type; (iv) geography, (v) age group, race, ethnicity, and gender; and (vi) sector. The reports will provide visibility into the impact of the Strategy’s efforts to provide economic opportunities to under-represented communities, including but not limited to aging individuals, persons of color, Indigenous and Native American persons,

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<sup>97</sup> “Broadband and 5G Regional Node Structure, Request for Grant Applications # JFSR2425158270,” The Ohio Department of Job and Family Services, pages 10 and Attachment C (Technical Proposal Score Sheet).

members of ethnic and religious minorities, women, LGBTQI+ persons, and persons who live in rural areas. This visibility can, in turn, help the Strategy to identify any areas for improvement and to re-focus its efforts on any under-represented population group as needed. This will ensure that the Strategy's efforts sufficiently support the development of a diverse broadband workforce, and that job opportunities created by BEAD are available to a diverse pool of workers.

**(Req 2.8.2):** Describe the information that will be required of prospective subgrantees to demonstrate a plan for ensuring that the project workforce (including contractors and subcontractors) will be an appropriately skilled and credentialed workforce. These plans should include the following:

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

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

- a. The job titles and size of the workforce (FTE positions, including for contractors and subcontractors) required to carry out the proposed work over the course of the project and the entity that will employ each portion of the workforce;

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

As part of subgrantee qualification requirements for technical capability, BroadbandOhio plans to require all prospective subgrantees deploying network facilities to certify that they are technically qualified to complete and operate the project. They must also certify that they are capable of carrying out the funded activities competently, with an appropriately skilled and credentialed workforce.

As part of this qualification requirement, BroadbandOhio plans to require prospective subgrantees to submit, as part of their application, a plan that demonstrates at a minimum the following for the project workforce (including contractors and subcontractors):

- The ways in which the prospective subgrantee will ensure the use of an appropriately skilled workforce—for example, through registered apprenticeships or other joint labor-management training programs that serve all workers (including those offered through the Strategy).
- The steps that will be taken to ensure that all members of the project workforce will have appropriate credentials—such as appropriate and relevant pre-existing occupational training, certification, and licensure (including those offered through the Strategy, as all Strategy-affiliated training programs provide industry-recognized credentials upon completion).
- Whether the workforce is unionized. If the project workforce or any subgrantee’s, contractor’s, or subcontractor’s workforce is not unionized, the following information must be provided with respect to the non-union workforce:
  - The job titles and size of the workforce (FTE positions, including for contractors and subcontractors) required to carry out the proposed work over the course of the project and the entity that will employ each portion of the workforce.
  - For each job title required to carry out the proposed work (including contractors and subcontractors), a description of:
    - Safety training, certification, and/or licensure requirements (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training as

relevant depending on title and work), including whether there is a robust in-house training program with established requirements tied to certifications and titles.

- Information on the professional certifications and/or in-house training in place to ensure that deployment is done at a high standard.
- Whether the workforce will be directly employed or the work will be performed by a subcontracted workforce.
- The entities that the proposed subgrantee plans to contract and subcontract with in carrying out the proposed work.

Prospective subgrantees whose plans do not sufficiently demonstrate all of the above required elements will be deemed as not meeting subgrantee qualification requirements and will not be considered for the subgrantee selection process.

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

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(Req 2.9.1) Description of the process, strategy, and the data tracking method(s) BroadbandOhio will implement to ensure that minority businesses, women-owned business enterprises (WBEs), and labor surplus area firms are recruited, used, and retained when possible.

**Strategy.** BroadbandOhio will collaborate with the Minority Business Development Division, which also resides within the Ohio Department of Development and has deep relationships within the broader Ohio minority business community, to execute on the strategic priority of ensuring that minority businesses, women-owned business enterprises (WBEs), and labor surplus area firms are recruited, used, and retained when possible. The key pillars of the strategy, which are aligned to the affirmative steps define in the process below, include:

1. Driving awareness of the opportunities within the MBE/WBE and Labor surplus firm communities.
2. Ensuring prime contractors are actively encouraged to sub-contract with MBE/WBE and Labor surplus firms and are structuring their contracts to make that possible.
3. Tracking data and outcomes across the process to ensure to strategy is being executed, and that it is impactful.

**Process.** BBOH will conduct the following actions to execute on each of the affirmative steps described below:

- a. **Place qualified small enterprises / MBE and WBEs on solicitation lists**
  - BroadbandOhio will partner with the Minority Business Development Division to ensure that solicitation lists to which the opportunities for state contracts are published include MBE and WBE businesses. In addition, solicitation lists that

target these businesses, such as those maintained by the Minority Business Assistance Centers and the Minority Business Enterprise Program<sup>98</sup> will be utilized. This will include distribution to MBE and WBEs that have acquired the Ohio "Encouraging Diversity, Growth and Equity" (EDGE) certification.<sup>99</sup>

- As part of technical assistance sessions and BroadbandOhio/The Minority Business Development Division will host technical assistance sessions for potential subgrantees. During these sessions, qualifying stakeholders will have the opportunity to register to be on the solicitation list.
- b. **Assure that small and minority businesses, and women’s business enterprises are solicited whenever they are potential sources.**
- As described above, MBE, WBE and Labor surplus firms will receive solicitations through the solicitation lists on which BroadbandOhio will share information regarding the upcoming BEAD grant rounds.
  - In addition, in partnership with the Minority Business Development Division, BroadbandOhio plans to provide prospective subgrantees with access to directories, which include WBE, MBE and labor surplus firms to enable proactive solicitation of smaller businesses as subcontractors.
  - BroadbandOhio will partner with the Ohio Department of Administrative Services to disseminate information on upcoming BEAD funding opportunities to any business registered for state procurement listed under relevant industries (e.g., as identified by UNSPSC/NAICS codes). This step will allow for qualifying MWBE and labor surplus firms that may not yet be officially registered as Certified EDGE business to be reached.
  - To reach all other WBE, MBE and labor surplus firms, information on BEAD funding opportunities will be posted to the BroadbandOhio website with information regarding how to be included in the solicitation list, in order to promote qualified MWBE and labor surplus firms’ participation in solicitation.
- c. **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**
- As part of the technical assistance provided to potential subgrantees, BroadbandOhio plans to provide a perspective on best practices to potential subgrantees to enable them, when economically feasible, to create subtasks within their subgrant applications which can be carried out by smaller businesses.
- d. **Establish delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women’s business enterprises**

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<sup>98</sup> <https://development.ohio.gov/business/minority-business/certifications/minority-business-enterprise-program>

<sup>99</sup> <https://development.ohio.gov/business/minority-business/certifications/encouraging-diversity-growth-and-equity-program>

- As part of the technical assistance provided to potential subgrantees, BroadbandOhio plans to provide a perspective on best practices to potential subgrantees to enable them, when economically feasible, to establish delivery schedules within their subgrant applications which can be carried out by smaller businesses.
- e. **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**
- In collaboration with the Ohio Minority Business Development Division, BroadbandOhio, will utilize the services and assistance to strengthen and expand outreach and technical assistance the WBE, WBE and Labor surplus firms
  - In addition to BEAD specific opportunities, broader technical assistance is made available to WBEs and MBEs through the Small Business Development Centers of Ohio<sup>100</sup>, including:
    - Business assessment valuation
    - Cash flow analysis
    - Financial projections development
    - Free one-on-one business counseling
    - Identifying sources of capital
    - Inventory control assessment
    - Market feasibility and research
    - Marketing strategy development
    - Strategic business planning
    - Workshops and training programs
- f. **Require subgrantees to take the affirmative steps listed above as it relates to subcontractors.** BroadbandOhio will require all subgrantees to take above affirmative steps regarding their subcontractors, and will take the following steps to support compliance:
- Leverage technical assistance sessions to ensure prospective subgrantees are aware of these requirements, and best practice approaches to implement the above affirmative steps
  - The subgrantee award agreement will include a clause specifying compliance with the affirmative steps for inclusion of MBE / WBE and Labor surplus firms.

**Data tracking.** Regarding solicitations, BroadbandOhio will work with the Minority Business Development Division track the number of MBEs, WBEs and Labor surplus firms that are on the solicitation lists to which information and solicitation are sent; and the number of solicitations that are sent to each list. Regarding contracting, BroadbandOhio will track the number of MBE and WBE firms that are awarded subcontracts directly from the state. Further, as part of quarterly

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<sup>100</sup> <https://development.ohio.gov/business/small-business-and-entrepreneurship/small-business-development-centers-ohio>

reporting, Ohio will require subgrantees to report Tier 2 spend, recipients, and denote which sub-contractors and spend are with MBEs or WBEs firms.

**(Req 2.9.2) [Check box]** BroadbandOhio certifies that it will take all necessary affirmative steps to ensure minority businesses, women’s business enterprises, and labor surplus area firms are used when possible, including the following outlined on pages 88 – 89 of the BEAD NOFO:

- a. Placing qualified small and minority businesses and women’s business enterprises on solicitation lists;
- b. Assuring that small and minority businesses, and women’s business enterprises are solicited whenever they are potential sources;
- c. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women’s business enterprises;
- d. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women’s business enterprises;
- e. Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and
- f. Requiring subgrantees to take the affirmative steps listed above as it relates to subcontractors.

# Cost and Barrier Reduction (Requirement 14)

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(Req 2.10.1) Steps that Ohio has taken or will take to reduce costs and barriers to deployment, include:

- a. (Non-BEAD) Investments to reduce deployment costs
- b. Promoting the use of existing infrastructure
- c. Streamlining permitting processes
- d. Streamlining cost-effective access to poles, conduits, easements
- e. Streamlining rights of way, including the imposition of reasonable access requirements.

BroadbandOhio is taking multiple steps to reduce costs and barriers to deployment across multiple fronts:

## (Non-BEAD) Investments to reduce deployment costs

**Acquisition and deployment of funds to expand middle mile access:** In 2022, Ohio supported submissions for middle mile funding:

- Midwest Regional Collaboration – Appalachia (MRC-A) plans to leverage ARISE grants to build a large-scale, multi-state middle-mile network in Appalachia
- Western Ohio Infrastructure Upgrade Pilot: Leveraging ARPA Capital Project Funds, this project will result in an RFP to improve middle-mile infrastructure in the north and western part of Ohio (100GB), which is required to accommodate additional bandwidth needs in the area.

**Funds for line extension subsidies.** Multiple Ohio residents in deeply rural areas have been asked to pay thousands of dollars to bring service from the road, down long driveways or paths to their homes. BroadbandOhio has proposed the use of ARPA Capital Project Funds for subsidizing line extensions, to reduce this barrier to broadband access that many residents face.

## Promoting the use of existing infrastructure

Ohio has significant assets available to support broadband deployment, including the state's Multi-Agency Radio Communication System (MARCS) towers. BroadbandOhio has planned, implemented, and administered pilot MARCS towers projects, which lets ISPs broadcast via the publicly owned Multi-Agency Radio Communications System, expanding their reach into unserved areas. For instance, BroadbandOhio ran a pilot project with the Southeast Ohio Broadband Cooperative that will provide high-speed internet to hundreds of previously unserved homes, including allowing 130 households to maintain coverage after a local ISP stopped providing internet service to the area.<sup>101</sup> Ohio is planning additional pilot MARCS tower projects in other counties.

Ohio is additionally exploring multiple means to standardize asset re-use. Ohio may also create a standard pricing list for using MARCS towers to encourage ISPs to leverage this state asset for broadband deployment.

Another asset BroadbandOhio plans to invest in to improve is school district infrastructure. BroadbandOhio intends to continue the BroadbandOhio Connectivity Grant project (shovel-ready school district project) from 2020 so that school districts can apply for money to fund school district-led projects that bring expanded connectivity where students and families have had very little broadband access. This project will be similar to the East Cleveland and Riverside buildouts that brought internet services to surrounding communities. The goal is to enable school districts to become “shovel-ready” to operate expanded broadband services autonomously after grant funding has been spent. This project would bring connectivity to a set of counties that have been unserved for several reasons, including a lack of funding for substantial broadband expansion at the school district level. With funding provided by the Coronavirus Capital Projects Fund (CPF), approximately 50 additional school districts could be connected at \$200,000 per project.

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<sup>101</sup> [Washington County/MARCS Tower Pilot Project](#), BroadbandOhio

## Streamlining permitting processes

Ohio is currently employing the following mitigation approaches:

- **Process streamlining:** Led by Lt. Governor Husted, Ohio's Common Sense Initiative (CSI) reviews business-impacting rules, helps businesses navigate regulatory obstacles, and leads initiatives to improve Ohio's regulatory climate. The Common Sense Initiative has reviewed over 10,000 agency regulations to date and amended inefficient ones.<sup>102</sup>

## Streamlining cost-effective access to poles, conduits, easements

- **Pole Replacement and Undergrounding Program:** Ohio established the Ohio broadband pole replacement and undergrounding program within the Department of Development to advance the provision of qualifying broadband service access to residences and businesses in an unserved area by reimbursing certain costs of pole replacements, mid-span pole installations, and undergrounding.<sup>103</sup>

Providers may apply for reimbursement under the Ohio Broadband Pole Replacement and Undergrounding program if the provider has paid for any of the following costs in association with the deployment of broadband infrastructure:

- Pole replacement costs
- Mid-span pole replacement costs
- Undergrounding costs

## Streamlining rights of way, including the imposition of reasonable access requirements

Ohio is currently employing the following mitigation approaches:

- **Municipal Right-of-Way:** Ohio Revised Code Section 4939 establishes terms of use for public rights-of-way, defines and lays guardrails for the authority of municipal corporations, and defines standard turnaround times for municipal responses for public ways.<sup>104</sup>

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<sup>102</sup> <https://Governor.ohio.gov/priorities/common-sense-initiative>

<sup>103</sup> Ohio House Bill 33, Sec. 191.02

<sup>104</sup> <https://codes.ohio.gov/ohio-revised-code/chapter-4939>

- Ohio Department of Transportation (ODOT) Right-of-Way: ODOT has implemented a streamlined E-Permitting system for right-of-way and utility permits.<sup>105</sup>



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<sup>105</sup> <https://www.transportation.ohio.gov/working/permits/row-utility/row-utility>

# Climate Assessment (Requirement 15)

(Req 2.11.1) Description of BroadbandOhio’s assessment of climate threats and proposed mitigation methods, including:

- a. Identify the geographic areas that should be subject to an initial hazard screening for current and projected future weather and climate-related risks and the time scales for performing such screenings;
- b. Characterize which projected weather and climate hazards may be most important to account for and respond to in these areas and over the relevant time horizons;
- c. Characterize any weather and climate risks to new infrastructure deployed using BEAD Program funds for the 20 years following deployment;
- d. Identify how the proposed plan will avoid and/or mitigate weather and climate risks identified; and
- e. Describe plans for periodically repeating this process over the life of the Program to ensure that evolving risks are understood, characterized, and addressed, and that the most up-to-date tools and information resources are utilized

By leveraging sources provided in the NTIA BEAD NOFO, BroadbandOhio has identified the geographic areas that should be subject to an initial hazard screening for current and projected future weather and climate-related risks; weather and climate risks as most important to account for in Ohio, (see Table 4); and the potential time scales for performing such screenings.

Table 4. Geographic areas that should be subject to hazard screening, per county

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Adams	<b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan <sup>106</sup>

<sup>106</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Ashland	<b>Winter Storm:</b> Very High Risk per FEMA NRI <sup>107</sup>
Ashtabula	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI;<sup>108</sup> Greater than 60 inches of snowfall on average annually per the State of Ohio 2019 Hazard Mitigation Plan<sup>109</sup></p> <p><b>Seiche/Coastal Flooding:</b> Listed as 1 of 8 counties impacted by Coastal Flooding and Seiche Waves per the State of Ohio 2019 Hazard Mitigation Plan<sup>110</sup></p> <p><b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan<sup>111</sup></p> <p><b>Coastal Erosion:</b> County with highest erosion of feet/year per the State of Ohio 2019 Hazard Mitigation Plan<sup>112</sup></p>
Athens	<b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan <sup>113</sup>
Auglaize	<b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan <sup>114</sup>
Belmont	<b>Riverine Flooding:</b> Among top 12 counties experiencing repetitive flood loss per the State of Ohio 2019 Hazard Mitigation Plan <sup>115</sup>

<sup>107</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>108</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>109</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Winter Storm, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>110</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Flooding, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>111</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>112</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Erosion, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>113</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>114</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>115</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
	<b>Landslide:</b> High landslide incidence, per the State of Ohio 2019 Hazard Mitigation Plan <sup>116</sup> ; Relatively High Risk per FEMA NRI <sup>117</sup>
Brown	<b>Landslide:</b> High landslide incidence, per the State of Ohio 2019 Hazard Mitigation Plan <sup>118</sup>
Butler	<b>Severe Summer Storm:</b> Relatively High Risk Strong Wind, Relatively High Risk Lightning per FEMA NRI <sup>119</sup> <b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>120</sup> <b>Tornado:</b> Relatively High Risk per FEMA NRI <sup>121</sup>
Champaign	<b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan <sup>122</sup>
Clark	<b>Tornado:</b> Top 10 counties with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan <sup>123</sup>
Clermont	<b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan <sup>124</sup> ; Relatively High Risk per FEMA NRI <sup>125</sup>

<sup>116</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>117</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>118</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>119</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>120</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>121</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>122</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>123</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>124</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>125</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Columbiana	<p><b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan<sup>126</sup></p> <p><b>Severe Summer Storm:</b> Relatively High Risk Lightning per FEMA NRI<sup>127</sup></p>
Crawford	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>128</sup></p>
Cuyahoga	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss per the State of Ohio 2019 Hazard Mitigation Plan<sup>129</sup></p> <p><b>Tornado:</b> 1 of 3 counties that have sustained more losses than any other region related to deaths and injuries, per the State of Ohio 2019 Hazard Mitigation Plan<sup>130</sup>; Relatively High Risk per FEMA NRI<sup>131</sup></p> <p><b>Winter Storm:</b> Very High Risk per FEMA NRI<sup>132</sup></p>
Darke	<p><b>Tornado:</b> Top 10 county with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan<sup>133</sup></p>
Erie	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan<sup>134</sup></p> <p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>135</sup></p>

<sup>126</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>127</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>128</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>129</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>130</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>131</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>132</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>133</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>134</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>135</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
	<b>Seiche/Coastal Flooding:</b> Listed as 1 of 8 counties impacted by Coastal Flooding and Seiche Waves per the State of Ohio 2019 Hazard Mitigation Plan <sup>136</sup>
Franklin	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan<sup>137</sup>; Relatively High Risk per FEMA NRI<sup>138</sup></p> <p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>139</sup></p> <p><b>Drought:</b> Relatively High Heat Wave Risk per FEMA NRI<sup>140</sup></p> <p><b>Severe Summer Storms:</b> Relatively High Risk Strong Wind per FEMA NRI, Relatively High Risk Lightning per FEMA NRI, Relatively High Risk Hail per FEMA NRI<sup>141</sup></p>
Geauga	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>142</sup></p> <p><b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan<sup>143</sup></p>
Greene	<b>Tornado:</b> 1 of 3 counties that have sustained more losses than any other region related to deaths and injuries, per the State of Ohio 2019 Hazard Mitigation Plan <sup>144</sup>
Guernsey	<b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan <sup>145</sup>

<sup>136</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Flooding, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>137</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>138</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>139</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>140</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>141</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>142</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>143</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>144</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>145</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Hamilton	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan<sup>146</sup></p> <p><b>Tornado:</b> Very High Risk per FEMA NRI<sup>147</sup></p> <p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>148</sup></p> <p><b>Landslide:</b> Relatively High Risk per FEMA NRI<sup>149</sup></p> <p><b>Drought:</b> Relatively High Risk Heat Wave per FEMA NRI<sup>150</sup></p>
Hancock	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan<sup>151</sup></p> <p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>152</sup></p>
Harrison	<p><b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan<sup>153</sup></p>
Hocking	<p><b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan<sup>154</sup></p>
Holmes	<p><b>Winter Storm:</b> Very High Risk per FEMA NRI<sup>155</sup></p>

<sup>146</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>147</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>148</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>149</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>150</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>151</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>152</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>153</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>154</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>155</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Huron	<b>Tornado:</b> Top 10 counties in Ohio with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan <sup>156</sup>
Jefferson	<b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan <sup>157</sup> ; Relatively High Risk per FEMA NRI <sup>158</sup>
Knox	<b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>159</sup>
Lake	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan<sup>160</sup></p> <p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI;<sup>161</sup> can see greater than ten feet of snowfall in a given year per the State of Ohio 2019 Hazard Mitigation Plan<sup>162</sup></p> <p><b>Seiche/Coastal Flooding:</b> Listed as 1 of 8 counties impacted by Coastal Flooding and Seiche Waves per the State of Ohio 2019 Hazard Mitigation Plan<sup>163</sup></p> <p><b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan<sup>164</sup></p> <p><b>Coastal Erosion:</b> County with the highest erosion of feet/year per 2019 Ohio Hazard Mitigation plan<sup>165</sup></p>

<sup>156</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>157</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>158</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>159</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>160</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>161</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>162</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Winter Storm, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>163</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Flooding, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>164</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>165</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Erosion, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Lawrence	<b>Landslide:</b> Very High Risk per FEMA NRI <sup>166</sup>
Logan	<b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan <sup>167</sup>
Lorain	<b>Tornado:</b> Top 10 county in Ohio with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan <sup>168</sup> <b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>169</sup> <b>Seiche/Coastal Flooding:</b> Listed as 1 of 8 counties impacted by Coastal Flooding and Seiche Waves per the State of Ohio 2019 Hazard Mitigation Plan <sup>170</sup>
Lucas	<b>Riverine Flooding:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan <sup>171</sup> <b>Tornado:</b> Relatively High Risk per FEMA NRI, <sup>172</sup> 1 of 3 counties that have sustained more losses than another other region related to deaths and injuries, per the State of Ohio 2019 Hazard Mitigation Plan <sup>173</sup> <b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>174</sup> <b>Severe Summer Storms:</b> Relatively High Risk Strong Wind per FEMA NRI
Mahoning	<b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>175</sup>

<sup>166</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>167</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>168</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>169</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>170</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Flooding, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>171</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>172</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>173</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>174</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>175</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
	<b>Landslide:</b> Relatively High Risk per FEMA NRI <sup>176</sup> <b>Severe Summer Storms:</b> Relatively High Risk Lightning per FEMA NRI <sup>177</sup>
Marion	<b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>178</sup>
Medina	<b>Tornado:</b> Top 10 county in Ohio with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan <sup>179</sup> <b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>180</sup>
Meigs	<b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan <sup>181</sup>
Mercer	<b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan <sup>182</sup>
Miami	<b>Tornado:</b> Top 10 county in Ohio with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan <sup>183</sup>
Monroe	<b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan <sup>184</sup>

<sup>176</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>177</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>178</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>179</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>180</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>181</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>182</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>183</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>184</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Montgomery	<p><b>Severe Summer Storms:</b> Relatively High Risk Strong Winds per FEMA NRI; Relatively High Risk Hail per FEMA NRI<sup>185</sup></p> <p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>186</sup></p>
Morrow	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>187</sup></p>
Ottawa	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan<sup>188</sup></p> <p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>189</sup></p> <p><b>Seiche/Coastal Flooding:</b> Listed as 1 of 8 counties impacted by Coastal Flooding and Seiche Waves per the State of Ohio 2019 Hazard Mitigation Plan<sup>190</sup></p> <p><b>Coastal Erosion:</b> County with the highest erosion of feet/year per 2019 Ohio Hazard Mitigation plan<sup>191</sup></p>
Portage	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>192</sup></p>
Richland	<p><b>Tornado:</b> Top 10 county in Ohio with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan<sup>193</sup></p> <p><b>Winter Storm:</b> Very High Risk per FEMA NRI<sup>194</sup></p>

<sup>185</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>186</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>187</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>188</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>189</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>190</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Flooding, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>191</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Erosion, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>192</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>193</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>194</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Sandusky	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>195</sup></p> <p><b>Seiche/Coastal Flooding:</b> Listed as 1 of 8 counties impacted by Coastal Flooding and Seiche Waves per the State of Ohio 2019 Hazard Mitigation Plan<sup>196</sup></p>
Seneca	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>197</sup></p>
Shelby	<p><b>Earthquakes:</b> Historical epicenter with earthquakes of magnitude greater than 2.0 having occurred since 1776, per the State of Ohio 2019 Hazard Mitigation Plan<sup>198</sup></p>
Stark	<p><b>Winter Storm:</b> Relatively High Risk per FEMA NRI<sup>199</sup></p> <p><b>Severe Summer Storms:</b> Relatively High Risk Lightning per FEMA NRI; Relatively High Risk Hail per FEMA NRI<sup>200</sup></p>
Summit	<p><b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss, per the State of Ohio 2019 Hazard Mitigation Plan<sup>201</sup>; Relatively High Risk Hail per FEMA NRI<sup>202</sup></p> <p><b>Winter Storm:</b> Very High Risk per FEMA NRI<sup>203</sup></p> <p><b>Severe Summer Storms:</b> Relatively High Risk Hail per FEMA NRI<sup>204</sup></p>
Trumbull	<p><b>Riverine Floods:</b> Relatively High Risk Hail per FEMA NRI<sup>205</sup></p> <p><b>Severe Summer Storms:</b> Relatively High Risk Lightning per FEMA NRI<sup>206</sup></p>

<sup>195</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>196</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Flooding, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>197</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>198</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Earthquakes, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>199</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>200</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>201</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>202</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>203</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>204</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>205</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>206</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

County (alphabetical order)	Projected weather and climate hazards that may be most important to account for
Van Wert	<b>Tornado:</b> Top 10 county in Ohio with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan <sup>207</sup>
Warren	<b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>208</sup>
Washington	<b>Riverine Floods:</b> Top 12 county experiencing repetitive flood loss per the State of Ohio 2019 Hazard Mitigation Plan <sup>209</sup> <b>Landslide:</b> High landslide incidence per the State of Ohio 2019 Hazard Mitigation Plan <sup>210</sup>
Wayne	<b>Winter Storm:</b> Very High Risk per FEMA NRI <sup>211</sup>
Wood	<b>Tornado:</b> Top 10 county in Ohio with tornadoes between 1950-2019 per the State of Ohio 2019 Hazard Mitigation Plan <sup>212</sup>
Wyandot	<b>Winter Storm:</b> Relatively High Risk per FEMA NRI <sup>213</sup>

## Weather and climate hazards most important to account for in Ohio

The following risks have been identified by leveraging the 2018 National Climate Assessment,<sup>214</sup> the NOAA 2022 State Climate Summaries (from the NOAA National Centers for Environmental

<sup>207</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>208</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>209</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>210</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>211</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>212</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>213</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>214</sup> 2018 National Climate Assessment, 2018, <https://nca2018.globalchange.gov/chapter/21/>

Information),<sup>215</sup> NOAA’s Disaster and Risk Mapping Tool (U.S. Billion-Dollar Disasters database),<sup>216</sup> the NOAA’s Storms Event Database,<sup>217</sup> FEMA’s National Risk Index (NRI),<sup>218</sup> the State of Ohio 2019 Hazard Mitigation Plan (Ohio’s FEMA-approved Hazard Mitigation Plan),<sup>219</sup> relevant centers of expertise at the state level (e.g., State of Ohio Department of Natural Resources)<sup>220</sup>, and other sources including the States At Risk climate assessment<sup>221</sup>:

- **Riverine flooding:** According to the State of Ohio 2019 Hazard Mitigation Plan, “flooding is the most frequently occurring natural disaster in Ohio and the United States.”<sup>222</sup> According to NOAA National Centers for Environmental Information State Climate Summaries for Ohio, “extreme precipitation is projected to increase, potentially causing more frequent and intense floods.” According to the States at Risk climate assessment, “by 2050 Ohio’s inland flooding threat is projected to increase by more than 25 percent.”<sup>223</sup>
- **Tornado:** According to the State of Ohio 2019 Hazard Mitigation Plan, “Ohio does not rank among the top states for the number of tornado events, it does rank within the top 20 states for fatalities, injuries, and dollar losses, indicating that it has a relatively high likelihood for damages resulting from tornadoes”.<sup>224</sup> Historically Greene, Lucas, and Cuyahoga counties have sustained the most losses related to death and injury.<sup>225</sup>
- **Winter Storm:** According to the State of Ohio 2019 Hazard Mitigation Plan, “the state has a 100% chance of seeing snowfall in any given year, and 6.9 days with winter storm events per year.”<sup>226</sup> However, the level and severity of snowfall vary greatly by location.<sup>227</sup> The vast majority of Ohio has the same chance of exceeding one to three feet of snow.<sup>228</sup> According to NOAA National Centers for Environmental Information State Climate

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<sup>215</sup> NOAA National Centers for Environmental Information state Climate Summaries 2022- Ohio, 2022, <https://statesummaries.ncics.org/chapter/oh/>

<sup>216</sup> NOAA’s Disaster and Risk Mapping Tool- the U.S. Billion-Dollar Disasters database, 2015, <https://www.ncei.noaa.gov/access/billions/summary-stats/OH/1980-2023>

<sup>217</sup> NCDC Storm Database, 2023, <https://www.ncdc.noaa.gov/stormevents/>

<sup>218</sup> FEMA National Risk Index, March 2023, <https://hazards.fema.gov/nri/map>

<sup>219</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>220</sup> State of Ohio Department of Natural Resources, <https://ohiodnr.gov/discover-and-learn/safety-conservation/geologic-hazards/le-coastal-erosion>

<sup>221</sup> States At Risk Climate Assessment, 2015, [http://assets.statesatrisk.org/summaries/Ohio\\_report.pdf](http://assets.statesatrisk.org/summaries/Ohio_report.pdf)

<sup>222</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Floods, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>223</sup> States at Risk Climate Assessment, 2015, [http://assets.statesatrisk.org/summaries/Ohio\\_report.pdf](http://assets.statesatrisk.org/summaries/Ohio_report.pdf)

<sup>224</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>225</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Tornado, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>226</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Winter Storm, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>227</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Winter Storm, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>228</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Winter Storm, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

Summaries for Ohio, the northern portion of the state along the southern shores of Lake Erie receives 60 inches of snow or more annually, and the southern portion of the state receives less than 16 inches annually.<sup>229</sup> According to NOAA U.S. Billion-Dollar Disasters database, winter storms have accounted for 5.6% of total cost of billion-dollar disasters in the state from 1980 to 2023.<sup>230</sup>

- **Landslide:** According to the State of Ohio 2019 Hazard Mitigation Plan, “the areas in southern and eastern Ohio have several conditions that can lead to the occurrence of landslide events” such as heavy rainfall.<sup>231</sup> The Cincinnati metropolitan area has one of the highest per capital costs of landslide damage of any metropolitan area in the United States.<sup>232</sup>

- **Wildfire:** According to the State of Ohio 2019 Hazard Mitigation Plan, “an average of 1000 wildfires burn 6,000 acres of forest and grassland within the Ohio Department of Natural Resources (ODNR) Division of Forestry's Wildfire Protection Area”.<sup>233</sup> Wildfires most frequently occur in Southern, Southeastern, and Eastern Ohio.<sup>234</sup>

- **Seiche/Coastal Flooding:** According to the State of Ohio Department of Natural Resources, “based on twelve events over 136 years, there is an 8.82% chance of a storm surge event significant enough to cause coastal flooding happening on any given year”.<sup>235</sup> According to the State of Ohio 2019 Hazard Mitigation Plan, “increased rain, lack of ice coverage, wind, and a changing climate will all have an effect on future coastal flooding.”<sup>236</sup>

- **Drought:** According to the State of Ohio 2019 Hazard Mitigation Plan, “the State of Ohio is most often affected by agricultural and hydrological types of droughts and is often affected by both simultaneously.”<sup>237</sup> The degree of a region's vulnerability depends on the environmental and social characteristics of the region and is measured by the ability to

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<sup>229</sup> NOAA National Centers for Environmental Information state Climate Summaries 2022- Ohio, 2022, <https://statesummaries.ncics.org/chapter/oh/>

<sup>230</sup> NOAA's Disaster and Risk Mapping Tool- the U.S. Billion-Dollar Disasters database, 2015, <https://www.ncei.noaa.gov/access/billions/summary-stats/OH/1980-2023>

<sup>231</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>232</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Landslides, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>233</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Wildfire, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>234</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Wildfire, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>235</sup> State of Ohio Department of Natural Resources - Coastal Erosion, [https://www.ema.ohio.gov/static/mip/links/2019\\_sohmp-Section\\_2.8\\_Seiche\\_Coastal\\_Flooding\\_FINAL.pdf](https://www.ema.ohio.gov/static/mip/links/2019_sohmp-Section_2.8_Seiche_Coastal_Flooding_FINAL.pdf)

<sup>236</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Coastal Flooding, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>237</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Drought, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

anticipate, cope with, resist, and recover from a drought.<sup>238</sup> According to the NOAA U.S. Billion-Dollar Disasters database, droughts have accounted for 21.3% of total cost of billion-dollar disasters in the state from 1980 to 2023.<sup>239</sup>

- **Severe Summer/Spring Storms:** According to the State of Ohio 2019 Hazard Mitigation Plan, "severe summer storms and associated thunderstorm/high winds, lightning, and hail events are common throughout Ohio and reported hundreds of times each year."<sup>240</sup> Based on available documented occurrences, severe summer storms are the most prevalent natural hazard events in Ohio with a 100% chance of occurring any given year.<sup>241</sup> According to the NCDC Storm Database, there have been 453 thunderstorm wind events from January 1, 2008, to December 31, 2017.<sup>242</sup> According to NOAA National Centers for Environmental Information State Climate Summaries for Ohio, a 10% increase is projected in total spring (March–May) precipitation for the middle of the 21st century compared to the late 20th century under a higher emissions pathway.<sup>243</sup>

**Weather and climate risks to new infrastructure deployed using BEAD program funds, and how the proposed plan will avoid and/or mitigate weather and climate risks.**

Based on a review of the sources provided by NTIA (in the Initial Proposal Guidance, Table 3: Climate Resources and Tools) on climate risks, all the weather and climate hazards cited above as the most important to account for in Ohio pose an ongoing risk to the new infrastructure deployed using BEAD program funds. The impact of each weather and climate risk on broadband infrastructure and proposed mitigation strategies are summarized in Table 5 below.

**Table 5.** Weather and climate risk to new infrastructure and proposed mitigation plan

Weather and climate risk	Risk to new infrastructure	Proposed mitigation strategy
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<sup>238</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Drought, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>239</sup> NOAA’s Disaster and Risk Mapping Tool- the U.S. Billion-Dollar Disasters database, 2015, <https://www.ncei.noaa.gov/access/billions/summary-stats/OH/1980-2023>

<sup>240</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Severe Summer Storm, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>241</sup> State of the State of Ohio 2019 Hazard Mitigation Plan – Severe Summer Storms, February 2019, <https://ema.ohio.gov/mitigation-plan/risk-analysis>

<sup>242</sup> NCDC Storm Database, 2023, <https://www.ncdc.noaa.gov/stormevents/>

<sup>243</sup> NOAA National Centers for Environmental Information state Climate Summaries 2022- Ohio, 2022, <https://statesummaries.ncics.org/chapter/oh/>

Flooding (Riverine and Seiche/ Coastal)	Could damage buried and underground plant, central office, and CPE	Selection of a technology platform suitable to the region's climate risks, reliance on alternative siting of facilities
Landslide	Could pose some risk to aerial plant and exposed CPE	Prompt restoration of service in the event of an outage
Wildfire	Could pose some risk to aerial plant and exposed CPE	Prompt restoration of service in the event of an outage
Severe Summer/ Spring Storms	Could pose some risk to aerial plant and exposed CPE	Use of established plans and processes to deal with extreme weather-related risks Prompt restoration of service in the event of an outage
Severe storms – Tornado	Could damage aerial plant, exposed CPE, and central office equipment	Use of established plans and processes to deal with extreme weather-related risks
Winter storms	Could pose some risk to aerial plant, buried plant, and exposed CPE	Use of established plans and processes to deal with extreme weather-related risks Prompt restoration of service in the event of an outage

### Plans for periodically repeating this process over the life of the Program

BroadbandOhio plans to periodically (every 10 years) repeat a review of the most up-to-date weather and climate hazards assessment research, tools and information resources to update this plan.

# Low-Cost Broadband Service Option (Requirement 16)

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(Req 2.12.1) Description of the low-cost broadband service option that must be offered by subgrantees as selected by Ohio, including why the outlined option best services the needs of Ohio residents. The definition of the low-cost broadband service option below addresses the following topics (which are outlined on page 67 of the BEAD NOFO):

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

## Description of low-cost broadband service option

BroadbandOhio adopts the definition of low-cost broadband service option as provided by the BEAD NOFO, defined as follows:

**Cost:** Costs \$30 per month or less, inclusive of all taxes, fees, and charges, with no additional non-recurring costs or fees to the consumer;

**Applicability of the Affordable Connectivity Benefit:** Allows the end user to apply the Affordable Connectivity Benefit subsidy to the service price;

**Basic service characteristics:**

- Download and upload speeds: Provides the greater of:
- (a) typical download speeds of at least 100 Mbps and typical upload speeds of at least 20 Mbps, or the fastest speeds the infrastructure is capable of if less than 100 Mbps/20 Mbps, or
- (b) 25 / 3 Mbps, which is the Federal Communications Commission (FCC)'s current performance benchmark for fixed terrestrial broadband service<sup>244</sup>
- Latency: Provides typical latency measurements of no more than 100 milliseconds
- Limits on usage or availability: 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 access service plans offered to home subscribers by the participating subgrantee must adhere

### **Provisions regarding the subscriber's ability to upgrade to any new low-cost service plans**

**offering more advantageous technical specifications:** In the event the provider later offers a low-cost plan with higher speeds downstream and/or upstream, permits Eligible Subscribers that are subscribed to a low-cost broadband service option to upgrade to the new low-cost offering at no cost.

Ohio plans to require these plans be offered beyond the potential discontinuation of the ACP program. Ohio additionally intends to require subgrantees to provide ACP-eligible plans to all Ohio locations that the subgrantees serve beyond awarded BEAD locations, as part of their award agreements.

### **How the defined low-cost broadband service option best services the needs of Ohio residents**

An ACP-eligible, low-cost plan is expected to best service the needs of Ohio residents considering the demonstrated demand in Ohio for ACP-eligible low-cost plans. Ohio has one of the highest ACP enrollment rates in the country. As of August 2023, the estimated enrollment rate among 1,984,218 eligible Ohioan households is 50% (compared to a national 37%).<sup>245</sup> The all-inclusive cost of \$30 per month defined above for the low-cost broadband service option, and required ACP participation by subgrantees, will make available an ACP-eligible, low-cost plan that would

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<sup>244</sup> 47 U.S.C. § 1302(b). The current performance benchmark for fixed terrestrial broadband service is 25 Mbps for downloads and 3 Mbps for uploads.

<sup>245</sup> ["Affordable Connectivity Program Enrollment Dashboard,"](#) EducationSuperHighway, accessed August 16, 2023.

be provided to qualifying Ohioans at no cost to them. The requirement that these plans be offered beyond the potential discontinuation of the ACP program will ensure the availability of a low-cost broadband service option regardless of the existence of the ACP subsidy, which will be critical to a substantial share of Ohioans as demonstrated by the high ACP enrollment above.

(Req 2.12.2) All subgrantees will be required to participate in the Affordable Connectivity Program or any successor program.

# Use of 20 Percent of Funding (Requirement 17)

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

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

BroadbandOhio requests 100 percent of funding allocation during the Initial Proposal round.

Below includes the amount of funding requested for use upon approval of the Initial Proposal, the intended use of funds, and how the proposed use of funds achieves the statutory objective of serving all unserved / underserved locations.

**Amount of funding.** BroadbandOhio requests 100% of funding allocation during the Initial Proposal round (\$793 million).

## Intended use of funds

BroadbandOhio is requesting an allocation of 100% to eliminate the digital divide by 2029.

BroadbandOhio intends to use BEAD funding on programmatic and administrative costs, toward workforce development initiatives, and enablement of execution of the challenge and subgrantee selection processes and overall administration during implementation.

BroadbandOhio will ensure that programmatic and administrative funds are applied appropriately.

## Programmatic costs

**Workforce readiness initiative.** The Governor’s Office of Workforce Transformation (OWT) developed Ohio’s Broadband & 5G Workforce Strategy (“Strategy”) in partnership with BroadbandOhio to address the projected workforce shortage for deploying broadband and 5G technology in the state of Ohio. The Strategy contains three key elements: (1) increasing career awareness in the telecommunications industry, (2) deploying and scaling education and training programs to meet the workforce demand, and (3) capitalizing on state and federal funding to finance the strategy to allow Ohioans to go through relevant education and training programs at low- or no-cost.

The Strategy was announced in September 2021. As part of the Strategy, Ohio created the Ohio Broadband & 5G Sector Partnership (“Sector Partnership”) to manage implementation, which is housed at the Ohio State University (“OSU”) and is industry-led by the Wireless Infrastructure Association (“WIA”). To date, Ohio has launched 11 education and training programs, with more currently in development. These programs have included 5 Certified Fiber Optic Technician programs, 2 5G Readiness programs, 3 Tower Technician programs, and a Broadband Infrastructure Training Program. Additionally, in the summer of 2023, six regional nodes have been launched in each JobsOhio region to lead the regional implementation of the Strategy.<sup>246</sup>

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<sup>246</sup> [https://www.ohiosap.org/aws/OSAE/pt/sd/news\\_article/523779/\\_blank/layout\\_details/false](https://www.ohiosap.org/aws/OSAE/pt/sd/news_article/523779/_blank/layout_details/false)

Across all 11 programs, over 400 Ohioans (including active participants) have enrolled, and over 250 students have completed their training to date and have passed their third-party certification exam.

Over the five-year span of BEAD funding to deploy broadband in Ohio, OWT and BroadbandOhio propose leveraging \$50M in funding to develop the required workforce for broadband expansion. This funding will be used to:

1. Sustain the Sector Partnership through 2028.
2. Sustain the six regional nodes that have been selected for each JobsOhio region through 2028.
3. Fund education and workforce initiatives across Ohio, including:
4. Career awareness and internships for K12 and postsecondary students;
5. New programs at career centers, community colleges, and universities;
6. Develop additional certificate programs at career centers and Ohio Technical Centers;
7. Develop an associate degree for community college;
8. Develop a major and minor at universities;
9. Expand pre-apprenticeship and apprenticeship programs;
10. Provide last-dollar tuition assistance so programs remain low- or no-cost;
11. Support instructor and faculty recruitment/retention so programs can run consistent cohorts;
12. Fund dedicated career services so program graduates seamlessly transition to employment; and
13. Fund marketing and awareness initiatives to drive enrollment in education/training programs.

**Rationale.** BroadbandOhio understands that, in order to reach BEAD objectives of universal service, the existence of a skilled workforce of sufficient size to support BEAD deployment projects is a necessary condition. BroadbandOhio believes upfront efforts toward developing a skilled, available broadband workforce within Ohio will not only help ensure a successful delivery of BEAD projects but also help lower barriers for providers from participating in BEAD by preempting workforce-related roadblocks. BroadbandOhio anticipates these measures to help ensure greater participation and interest by providers, raise competition for BEAD funds, and thereby help ensure higher-quality bids – all of which BroadbandOhio believes will contribute to a more efficient BEAD fund outlay.

Specific rationale for why workforce availability has been identified as a potential roadblock for provider participation, and why BroadbandOhio believes direct implementation of this effort is critical, is outlined below:

**Currently emerging gaps broadband workforce availability in Ohio, which threatens the BEAD timelines.** In Ohio, it is projected that the state will need over 2,500 workers to expand broadband and over 26,000 workers to deploy 5G technology through 2030. The broadband and 5G industry (telecommunications) are facing a widening skills gap due to a lack of standardized training programs and professional degree programs. The aging workforce and high turnover rates are contributing to a dwindling workforce in the industry. The constant evolution of technologies and lack of industry-academia partnerships pose significant challenges. The strategy hopes to implement countervailing efforts to address these gaps.

Listening session participants described the importance of addressing workforce readiness issues. During BEAD-SDOP listening sessions conducted during the preparation of the Five-Year Action Plan, ISPs have already noted that labor is increasingly difficult to source. While training programs could help mitigate this labor gap, a listening session participant noted that workforce training programs for broadband deployment-related jobs may face attrition due to slow ramp-up in salary and labor-intensive nature of the job compared to other jobs with similar entry wage levels.

**Barrier to broadband deployment highlighted by stakeholders as key area to be addressed by BroadbandOhio.** During the BEAD-SDOP stakeholder engagement and during the workforce strategy development led by the Governor's Office of Workforce Transformation, ISPs highlighted the need for the state's attention and mitigation efforts toward workforce readiness:

**Broadband & 5G Workforce Strategy development.** The strategy is fundamentally grounded on areas that stakeholders have identified as those they believed the state should concentrate its efforts on to help address broadband workforce challenges. By implementing the workforce strategy directly, BroadbandOhio would thus help address key areas that stakeholders have identified as focus areas for the state.

For instance, to ensure Ohio conducted a thorough analysis, the Governor's Office of Workforce Transformation and BroadbandOhio engaged stakeholders across the broadband and 5G spectrum from telecommunications, construction subcontracting, industry associations, trade groups, rural electric co-ops, nonprofits, career-technical education providers, Ohio Technical Centers, and two- and four-year colleges and universities. Over a four-week period, the state used a total of 10 stakeholder meetings to ensure it was accurately tracking the preliminary issues identified and to solicit feedback on what Ohio should do to address the broadband and 5G workforce shortage. The meetings created positive collaboration between industry and education on identifying ways to build the broadband workforce needed in Ohio.<sup>247</sup>

The strategy additionally leveraged the Federal Communications Commission (FCC) Broadband Deployment Advisory Committee (BDAC)'s report that examined the broadband industry's workforce challenges in 2019.<sup>248</sup> The BDAC report was an extensive, fifteen-month process that looked at the broadband industry's workforce challenges at the national level. The Co-Chair of the FCC BDAC report, Dr. Rikin Thakker, who then served as the Chief Technology Officer at the Wireless Infrastructure Association (WIA), was an active participant in Ohio's broadband workforce analysis, using his national expertise to assist the state in identifying the key challenges for Ohio to address. The BDAC report and discussions with stakeholders clarified the need for the state to focus on a few key issue areas, which serve as the 3 pillars of the Strategy: broadband industry career awareness, education and training programs, and awareness of state and federal funding for training programs.<sup>249</sup>

**BEAD-SDOP survey.** ISP survey results additionally show that workforce readiness is a key area that ISPs want additional support from BroadbandOhio. When asked about the main types of support needed from BroadbandOhio to continue increasing access to affordable internet, internet capable devices, and digital skills, approximately 40% of the 21 ISP respondents cited “ensuring skilled workforce for broadband roles” as a key area, second only to “increasing funding/grants for broadband deployment.”<sup>250</sup>

## Other Programmatic and Administrative costs

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<sup>247</sup> [Strengthening Ohio's Broadband & 5G Workforce](#), page 4

<sup>248</sup> <https://www.fcc.gov/sites/default/files/bdac-job-skills-training-opportunities-approved-rec-10292020.pdf>

<sup>249</sup> [Strengthening Ohio's Broadband & 5G Workforce](#), page 4

<sup>250</sup> BroadbandOhio Internet Access Survey, as of July 11, 2023 (Respondent N = 21). Question: “What are the main types of support the ISP needs from BroadbandOhio to continue increasing access to affordable internet, internet capable devices, and digital skills? Select up to three.”

Funds will be leveraged for other programmatic and administrative costs to ensure an efficient and effective operation of the challenge process and subgrantee process, and administration during implementation. This may include funding use toward key grant application processing, program management, and compliance activities. The funds will be used to drive efficient and effective execution of the challenge process, the subgrantee selection process, and administration of the subgrants during implementation. BroadbandOhio may utilize a combination of internal staff, staff augmentation, and contractor support.

**Rationale.** BroadbandOhio has relevant experience implementing statewide broadband funding rounds through the ORBEG program and will leverage this knowledge toward efficiently undertaking administrative activities for grant management, challenge process implementation, and Subgrantee Selection Process execution. However, given the scale, scope, and timeline, funds are needed to support activities across the challenge process as well as grant application intake, review and processing, program management, and compliance activities.

#### **Relation to statutory objective of serving all unserved / underserved locations**

The proposed deployment activities, combined with the Subgrantee Selection Process outlined in 2.4, will help address BEAD's statutory objective of serving all unserved and underserved locations.

BroadbandOhio requests \$50 million, or approximately 6% of total BEAD funds, toward the workforce initiative after accounting for estimated amount of funds required to reach all unserved / underserved locations in BroadbandOhio.

Ohio currently has approximately \$872 million available for broadband deployment, from BEAD (\$793 million) and CPF (for ORBEG Round 2, \$79 million). Ohio also has approximately \$63 million in addition that will help reduce cost to pass, from the Ohio Broadband Pole Replacement and Undergrounding program (\$50 million) and CPF projects (Western Ohio Infrastructure Upgrade Pilot Project and Line Extension Program).

Accounting for enforceable commitments such as CAFII, USDA, RDOF, and ORBEG, Ohio has approximately 123,000 unserved and 85,000 underserved BSLs without an enforceable

commitment. With proposed DSL technology modifications as described in Initial Proposal Volume I, there are approximately 123,000 unserved and 88,000 underserved BSLs in Ohio.

NTIA business case figures estimate approximately \$585 million will be required to bring the 20-year NPV figures to be at or above \$0, if assuming greenfield FTTH build to reach all unserved and underserved BSLs in Ohio as described above. Above estimate suggests that \$208 million out of \$793 million BEAD funding will remain after deployment efforts to reach all unserved and underserved BSLs. ORBEG Round 2 leveraging CPF funds will also be conducted prior to BEAD, which will additionally reduce the count of eligible BSLs by the time of BEAD funding rounds and subsequent need for BEAD outlay. BroadbandOhio anticipates this deployment cost could be further lowered by its Ohio Broadband Pole Replacement and Undergrounding program and other CPF programs, and the proposed workforce efforts to be funded by BEAD funds will further support timely, cost-efficient, and compliant deployment efforts.

Additionally, as mentioned above, BroadbandOhio believes upfront efforts toward developing a skilled, available broadband workforce within Ohio will help lower barriers for providers from participating in BEAD by preempting workforce-related roadblocks. BroadbandOhio anticipates these measures to help ensure greater participation and interest by providers, raise competition for BEAD funds, and thereby help ensure higher-quality bids. BroadbandOhio believes all of these factors will contribute to a more efficient BEAD fund outlay, which in turn would support the goal of serving all unserved and underserved locations with BEAD funds.

Beyond encouraging higher provider participation, the intended use of funds above is expected to additionally support the statutory objective of serving all unserved / underserved locations in the following manner:

- Reduced deployment cost. An available, appropriately skilled and credentialed workforce will help subgrantees reduce costs related to workforce recruitment, training, and preparedness, which would in turn reduce BEAD deployment costs, help toward minimizing BEAD outlay, and better meet the objective of serving all unserved / underserved locations.
- Expedited deployment timeline. Ensuring workforce availability will help support subgrantees to reduce time required to secure an appropriately skilled and credentialed workforce for BEAD deployment projects, thereby reducing the overall deployment timeline to reach unserved / underserved locations.

- Compliance. Use of funds toward programmatic requirements for the challenge and subgrantee process (e.g., hiring of contractors for implementation of challenge and subgrantee process, or validating planned deployment activities by subgrantees) would help better ensure compliance with BEAD requirements in the process of meeting the statutory objective of serving all unserved / underserved locations.

(Req 2.14.2) The amount of the Initial Proposal Funding Request is \$793,688,107.63.<sup>251</sup>

(Req 2.14.3) BroadbandOhio will adhere to BEAD Program requirements regarding Initial Proposal funds usage.

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<sup>251</sup> Full allocation for the state of Ohio. See: <https://broadbandusa.ntia.doc.gov/news/latest-news/biden-harris-administration-announces-state-allocations-4245-billion-high-speed>

# Eligible Entity Regulatory Approach (Requirement 18)

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(Req 2.15.1):

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

Ohio will waive all Ohio laws concerning broadband, utility services, or similar subjects, whether they predate or postdate enactment of the Infrastructure Act that either (a) preclude certain public sector providers from participation in the subgrant competition or (b) impose specific requirements on public sector entities, such as limitations on the sources of financing, the required imputation of costs not actually incurred by the public sector entity, or restrictions on the service a public sector entity can offer.

Specifically pertaining participation of public sector providers, BroadbandOhio will enable participation by public sector providers that have been established before the enactment of the Bipartisan Infrastructure Law, on November 15, 2021.<sup>252</sup>

(Req 2.15.1.1) Optional Attachment: As a required attachment only if the Eligible Entity will not waive laws for BEAD Program project selection purposes, provide a list of the laws that the Eligible Entity will not waive for BEAD Program project selection purposes, using the Eligible Entity Regulatory Approach template provided.

Not applicable

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<sup>252</sup> Enactment date from U.S. Department of Transportation. <https://www.transportation.gov/bipartisan-infrastructure-law/faq#:~:text=When%20was%20the%20Bipartisan%20Infrastructure.Law%20on%20November%2015%2C%202021.>

# Certification of Compliance with BEAD Requirements (Requirement 19)

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**(Req 2.16.1) Certification:** BroadbandOhio intends to comply with all applicable requirements of the BEAD Program, including the reporting requirements.

**(Req 2.16.2) Description of subgrantee accountability procedures, including how BroadbandOhio will, at a minimum, employ the following practices outlined on page 51 of the BEAD NOFO:**

- a. Distribution of funding to subgrantees for, at a minimum, all deployment projects on a reimbursable basis (which would allow the Eligible Entity to withhold funds if the subgrantee fails to take the actions the funds are meant to subsidize);
- b. The inclusion of clawback provisions (i.e., provisions allowing recoupment of funds previously disbursed) in agreements between the Eligible Entity and any subgrantee;
- c. Timely subgrantee reporting mandates; and
- d. Robust subgrantee monitoring practices.

BroadbandOhio intends to adopt the following steps to ensure subgrantee accountability.

## **Distribution of all funds to subgrantees on a reimbursable basis:**

- In alignment with Ohio Administrative Code, Rule 122:30-1-05, a portion of grant funds—not to exceed ninety (90) percent of total grant funds awarded to the project—will be disbursed through periodic payments. Disbursement will be based on meeting measurable milestones in project construction progression prior to project completion, as determined by BroadbandOhio from the application materials.

BroadbandOhio will include in the program grant agreement the progress reporting that must be submitted to BroadbandOhio for the applicant to receive a periodic disbursement.<sup>253</sup>

- Additionally, at least ten (10) percent of grant funds will be disbursed upon proof of project completion by submission of a project completion report to the Ohio Broadband Expansion Program Authority within sixty (60) days of project completion. A project is considered complete when the grantee can provide service to the approved addresses without extraordinary cost or time to the end-user.
- All subgrantees will be required to enter an award agreement specifying that BEAD funds will be disbursed upon satisfactory proof of the agreed project commitments. Up to 90 percent of BEAD grant funds will be paid by periodic payment throughout the construction period. Upon completion of the project commitments outlined in the scope of work, the balance of the remaining BEAD grant funds will be disbursed no later than 60 days after receipt of confirmation of completion of construction of the project, as verified by speed tests. BroadbandOhio will judge the satisfaction of project commitments for disbursement of BEAD grant funds. All expenses paid with BEAD funds shall be supported by contracts, invoices, vouchers, paid receipts and other documentation as appropriate to evidence the costs incurred by the subgrantee in performing the BEAD project as described in its project milestones. Project milestones will be submitted to BroadbandOhio as part of the award agreement, which will be reviewed and approved by BroadbandOhio.

#### The inclusion of claw-back provisions

- Per HB33, Section 122.4020 (16), BroadbandOhio will require all potential subgrantees to provide a notarized statement affirming that the applicant broadband provider accepts the condition that non-compliance with BEAD program requirements may require the provider to refund all or part of any program grant the provider receives. An example of this notarized statement can be found in 2.4.11.1 Optional Attachment.
- Upon subgrantee selection, the award agreement will stipulate that if BEAD grant funds are not expended by the subgrantee in accordance with the terms and conditions of the award agreement or within the time period set forth in the award agreement, the award of the BEAD grant funds shall cease, and BroadbandOhio shall have no further obligation to disburse the BEAD grant funds. The agreement will also stipulate that if BEAD grant funds have been paid to the subgrantee, and BroadbandOhio determines that the subgrantee has not performed in accordance with the terms and conditions of the award agreement, the subgrantee shall return such improperly expended BEAD grant funds within 30 days after demand by BroadbandOhio.
- The award agreement will also stipulate that in the event of a subgrantee failure to

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<sup>253</sup> [https://broadband.ohio.gov/static/Updated\\_ORC\\_122.30\\_ORBEG\\_Rules.pdf](https://broadband.ohio.gov/static/Updated_ORC_122.30_ORBEG_Rules.pdf)

perform any of its material obligations under the award agreement, BroadbandOhio may exercise remedies including discontinuation of fund disbursements, demand to subgrantee of repayment of grant funds, and other legal remedies.

### c. Timely subgrantee reporting mandates

BroadbandOhio will require all subgrantees to submit a quarterly report, which will include the following:

**Project description.** An account of how the program grant funds have been used and the project's progress toward fulfilling the objectives for which the program grant was awarded, including:

- Summary of reporting period activities
- Summary of progress toward milestone objectives and estimated percentage of completion
- Details and plans to overcome roadblocks, if any
- Details and plans to move the project back on the project timeline if any delays have occurred or are expected
- Any public right-of-way or public facilities utilized within the project area
- Project type (e.g., fiber, fixed wireless, hybrid)

**List of addresses.** A list of addresses or identified locations (including the Broadband Serviceable Location Fabric established under 47 U.S.C. 642(b)(1)(B)) that constitute the locations that will be served by the broadband infrastructure to be constructed, as well as the status of each project, including:

- Tabulation of the full list of locations within the project scope, indicating for each address whether the location has been passed, the service speeds being offered, and whether the location is subscribing to the service.

**New locations served.** New locations served within each project area at the relevant reporting intervals as well as service taken (if applicable), including:

- Number of locations with access to broadband services that are counted as served due to the eligible project
- Number of locations that are not funded directly by the grant program but have access to broadband service and are counted as served due to the eligible project
- The number of broadband service subscriptions attributable to the program grant, including:
- Number of passes subscribing to service per grant, cumulative and during reporting period

- Number of subscribers on ACP plan
- Number of passes that chose not to take service for the reporting period.

**Type of location.** Whether each address or location is residential, commercial, or a community anchor institution.

**Type of facilities.** The types of facilities that have been constructed and installed, including:

- Miles of fiber or number of towers constructed if applicable.

**Speed.** The upstream and downstream speed of the broadband service provided, including:

- Actual speed. Peak and off-peak actual speeds of the broadband service being offered
- Advertised speed. Maximum advertised speed of the broadband service being offered.

**Average price of broadband service.** The non-promotional prices, including any associated fees, charged for different tiers of broadband service being offered. Providers will be required to supply this information for both new customers and existing customers, along with a commitment to maintain these prices for the duration of the BEAD reporting period, in the same format for service rate information required during the application process. Subgrantees will be allowed to adjust prices yearly in-line with the Consumer Price Index. If the previously committed time period has not lapsed, the subgrantee can refer to the earlier commitment.

**Interconnection agreements.** All interconnection agreements that were requested and their current status.

**Contracts and subcontracts.** The number and amount of contracts and subcontracts awarded by the subgrantee, disaggregated by recipients of each such contract or subcontract that are MBEs or WBEs.

**Data mapping.** Any other data required to comply with the data and mapping collection standards of the Commission under Section 1.7004 of title 47, Code of Federal Regulations, or any successor regulation for broadband infrastructure projects.<sup>254</sup>

**Financial reporting.** An SF-425, Federal Financial Report that meets the requirements described in the Department of Commerce Financial Assistance Standard Terms and Conditions (dated

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<sup>254</sup> 47 CFR 1.7004, <https://www.ecfr.gov/current/title-47/section-1.7004>

November 12, 2020), Section A.01 for Financial Reports, as well as the Quarterly Fiscal Report, in Excel format, as well as any additional source documents as necessary.<sup>255</sup>

**Reporting requirements for projects over \$5 million.** For projects over \$5,000,000 (based on expected total cost):

- A subgrantee may provide a certification that, for the relevant project, all laborers and mechanics employed by contractors and subcontractors in the performance of such project are paid wages at rates not less than those prevailing, as determined by the U.S. Secretary of Labor in accordance with Subchapter IV of Chapter 31 of Title 40, United States Code (commonly known as the “Davis-Bacon Act”), for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State (or the District of Columbia) in which the work is to be performed, or by the appropriate State entity pursuant to a corollary State prevailing-wage-in-construction law (commonly known as “baby Davis-Bacon Acts”). If such certification is not provided, a recipient must provide a project employment and local impact report detailing:
  - The number of contractors and sub-contractors working on the project
  - The number of workers on the project hired directly and hired through a third party
  - The wages and benefits of workers on the project by classification
  - Whether those wages are at rates less than those prevailing<sup>256</sup>
  - If a subgrantee has not provided a certification that a project either will use a unionized project workforce or includes a project labor agreement, meaning a pre-hire collective bargaining agreement consistent with Section 8(f) of the National Labor Relations Act (29 U.S.C. 158(f)), then the subgrantee must provide a project workforce continuity plan, detailing:
    - Steps taken and to be taken to ensure the project has ready access to a sufficient supply of appropriately skilled and unskilled labor to ensure construction is completed in a competent manner throughout the life of the project (as required in Section IV.C.1.e), including a description of any required professional certifications and/or in-house training, registered apprenticeships or labor-management partnership training programs, and partnerships with entities like unions, community colleges, or community-based groups.
    - Steps taken and to be taken to minimize risks of labor disputes and disruptions that would jeopardize timeliness and cost-effectiveness of the project.

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<sup>255</sup> [https://www.commerce.gov/sites/default/files/2020-11/DOC%20Standard%20Terms%20and%20Conditions%20-%202012%20November%202020%20PDF\\_0.pdf](https://www.commerce.gov/sites/default/files/2020-11/DOC%20Standard%20Terms%20and%20Conditions%20-%202012%20November%202020%20PDF_0.pdf)

<sup>256</sup> As determined by the U.S. Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code (commonly known as the “Davis-Bacon Act”), for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the civil subdivision of the State (or the District of Columbia) in which the work is to be performed.

- Steps taken and to be taken to ensure a safe and healthy workplace that avoids delays and costs associated with workplace illnesses, injuries, and fatalities, including descriptions of safety training, certification, and/or licensure requirements for all relevant workers (e.g., OSHA 10, OSHA 30, confined space, traffic control, or other training required of workers employed by contractors), including issues raised by workplace safety committees and their resolution.
- The name of any subcontracted entity performing work on the project and the total number of workers employed by each such entity, disaggregated by job title.
- Steps taken and to be taken to ensure that workers on the project receive wages and benefits sufficient to secure an appropriately skilled workforce in the context of the local or regional labor market.

**Certification.** Certification that the information in the report is accurate.

Beyond the above reporting requirements, BroadbandOhio will require subgrantees to submit the following reports:

**Project completion report.** Each broadband provider entering into a program grant agreement will promptly upon completion of its project provide notice to BroadbandOhio and the Ohio Broadband Expansion Program Authority that the project is complete in the manner and form set forth in the program grant agreement. Within sixty (60) days following completion of the project, the broadband provider will submit a project completion report to BroadbandOhio containing all information required in the quarterly report above, all information required in the program grant agreement, and any other information BroadbandOhio may request in the form and manner required by BroadbandOhio. The project completion report is also the broadband provider's first operational report, described below.

**Operational report.** On or before the date that is sixty (60) days from the project completion date, as indicated in the project completion notification, and for four (4) years following the year the broadband provider submits its project completion report, the broadband provider will submit an operational report to BroadbandOhio. The broadband provider will include in its operational report information included below, information required under the program grant agreement, and any other information requested by BroadbandOhio in the form and manner required by BroadbandOhio.

- An account of how program grant funds have been used and the project's progress toward fulfilling the objectives for which the program grant was awarded

- The number of locations that have access to tier-two broadband services as a result of the eligible project
- The number of locations that are not funded directly by the grant program but have access to tier-two broadband service as a result of the eligible project
- The upstream and downstream speed of the broadband service provided
- The average price of broadband service, in the service rate format described in the quarterly report above
- The number of broadband service subscriptions attributable to the program grant.

As a means of enforcement, BroadbandOhio will stipulate in its award agreement that if the subgrantee fails to submit any report and does not remedy it for more than 30 days, the subgrantee shall pay a monetary penalty as liquidated damages for the breach.

In addition, BroadbandOhio will meet with all subgrantees on a monthly basis. These meetings will include a sub-grantee status update and discussions on any roadblocks and approaches to troubleshooting if they should arise.

#### **d. Robust subgrantee monitoring practices**

In the ORBEG award agreement, BroadbandOhio stipulates that, as part of the subgrantee reporting process, the subgrantee shall provide to BroadbandOhio such additional information and reports as BroadbandOhio may reasonably request as a requirement to evaluate the subgrantee's performance and the effectiveness of the award.

BroadbandOhio may, through an independent third party, conduct speed verification tests of an eligible project that receives a program grant. Such tests shall occur as follows:

- After the construction is complete, but prior to the final disbursement made to verify that tier-two broadband service is being offered.
- At any time during the reporting period required as described above, after receiving a complaint concerning a location that is part of the eligible project.

To evaluate compliance with BEAD broadband service standards, speed verification tests conducted as described here shall be conducted on at least two different days and at two

different times on each of those days. BroadbandOhio may withhold payments for failure to meet at least the minimum speeds required, until such speeds are achieved.<sup>257</sup>

**Site visits.** BroadbandOhio plans to conduct semi-annual site visits, as deemed necessary or appropriate in coordination with key milestones, to confirm that infrastructure build has been completed in the planned locations reported by subgrantees.

**Project completion verification.** BroadbandOhio will stipulate in the award agreement that, prior to final disbursement of BEAD grant funds, BroadbandOhio shall verify project completion by speed verification tests, or other means, of the last-mile infrastructure that is capable of providing service to the locations in the project milestones.

**(Req 2.16.3) Certification.** BroadbandOhio will account for and satisfy authorities relating to civil rights and nondiscrimination in the selection of subgrantees.

**(Req 2.16.4) Certification.** BroadbandOhio certifies that it will take all necessary affirmative steps to ensure subgrantee compliance with the cybersecurity and supply chain risk management requirements on pages 70 - 71 of the BEAD NOFO. Prospective subgrantees must attest that:

#### Cybersecurity

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

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<sup>257</sup> [Ohio House Bill 33](#), Sec. 122.4045.

- 3) The plan will be reevaluated and updated on a periodic basis and as events warrant.
- 4) The plan will be submitted to the eligible entity prior to the allocation of funds. If the subgrantee makes any substantive changes to the plan, a new version will be submitted to the eligible entity within 30 days.

### Supply Chain Risk Management (SCRM)

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

# Middle Class Affordability (Requirement 20)

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(Req 2.13.1) Description of a middle-class affordability plan that details how high-quality broadband services will be made available to all middle-class families in the BEAD-funded network's service area at reasonable prices.

BroadbandOhio will take the following actions to make high-quality broadband services available to all middle-class families in the BEAD-funded network's service area at reasonable prices:

**Leverage selection criteria relating to affordability.** As demonstrated in 2.4.2, BroadbandOhio will evaluate the prospective subgrantee's commitment to provide the most affordable total price to the customer for 1 Gbps/1 Gbps service in the project area for priority broadband projects, or 100/20 Mbps service in the proposed service area for projects that are not priority broadband projects. Specifically, BroadbandOhio will require, as part of the application content, a customer service rate table from each applicant that specifies the committed rate for a plan in line with the speeds listed above. BroadbandOhio will use that information to calculate a statewide average price among BEAD prospective subgrantees for plans with the commensurate speed specifications. Specifically, the rates provided by applicants will be leveraged to calculate a weighted statewide average by proportion of all eligible BSLs that each application represents. Then, each application's commensurate rate will be ranked in comparison to the calculated statewide average plan rate above, by calculating each application's count of standard deviations away from the statewide average rate, and percentiling the deviation across all applications. The lowest cost will receive the highest score according to the scoring criteria.

BroadbandOhio intends to assign 10% of the total scoring weight to this criterion. Through this scoring criteria, BroadbandOhio anticipates to promote competition toward providing affordable, high-speed plans for Ohioans.

**Using regulatory authority to promote structural competition by opening access to multi-dwelling units.** Ohio has regulatory requirements in place that help promote access to multi-dwelling units. Specifically, the 2022-2023 Qualified Allocation Plan for the Housing Tax Credit (HTC) stipulates that all developments participating in the HTC program (i) install wireless broadband infrastructure in each unit and all common areas, and (ii) provide free access in all common areas.<sup>258</sup>

**Promoting consumer pricing benchmarks that provide consumers an objective criterion to use in determining whether the rate offerings of broadband service providers are reasonable and to encourage providers to adopt affordable pricing.** BroadbandOhio intends to publish on its webpage the service rate information submitted by awarded subgrantees as part of the subgrantee process and project reporting requirements. The service rate information will be available for new customers and existing customers. BroadbandOhio anticipates that this pricing transparency will not only allow Ohioan consumers a benchmark to use when determining whether rate offerings by providers are reasonable, but will also encourage providers to adopt affordable pricing.

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<sup>258</sup> Ohio Housing Finance Agency, Housing Tax Credit Program, 2022-2023 Qualified Allocation Plan (<https://ohiohome.org/ppd/documents/2022-2023-QAP.pdf>). Page 21: "All developments must install wireless broadband infrastructure in compliance with Federal Register 81 FR 31181 "Narrowing the Digital Divide through Installation of Broadband Infrastructure". Installation must result in speeds in each unit (living or dining room and each bedroom) and all common areas meeting the Federal Communications Commission's (FCC's) definition in effect at the time of generating the pre-construction estimates. Owners are not required to pay for tenants' service but must provide free access in all common areas (exclusive of circulation space) through the Extended Use Period (does not apply to developments in areas that lack broadband service)."

# Appendix 1. BEAD Five-Year Action Plan, Stakeholder Engagement: Key Takeaways

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Below includes the BEAD Five-Year Action Plan, 5.1.4. Stakeholder Engagement, Key Takeaways. This content is identically described in Ohio’s BEAD Five-Year Action Plan, submitted to NTIA on June 27, 2023. It has been included in this Initial Proposal to fulfill Requirement 2: Local, Tribal and Regional Broadband Planning Processes (2.2.1), per the Guidance provided by the NTIA.<sup>259</sup> All other parts of the Five-Year Action Plan, 5.1: Stakeholder Engagement has been incorporated in this document above.

## **5.1.4 Key takeaways**

The three surveys issued as part of the BEAD-DE stakeholder engagement process are still in the market, so the insights below come from in-person and virtual listening sessions and state agency interviews. The remainder of this section refers to information gathered at the listening sessions. State agency insights have been incorporated elsewhere in this plan, and collaboration with these parties is ongoing; survey response data will be incorporated into the State Digital Opportunity Plan and the BEAD Initial Proposal.

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<sup>259</sup> NTIA BEAD Initial Proposal Full Guidance, page 29: “An Eligible Entity that has already completed its Five-Year Action Plan may directly copy its Stakeholder Engagement Process (Requirement 7 in the Five-Year Action Plan) into the Initial Proposal to satisfy this requirement [Requirement 2].”

## Takeaways by entity type

Insights that were consistent across all regions include the following:

- Across the state, residents' access to broadband options (such as fixed wireless and fiber) vary, as do broadband costs. Contributing factors to these differences include complex regional topography, which inhibits certain broadband infrastructure options, and dated infrastructure, which hinders speed and reliability (often due to inclement weather conditions' affecting the infrastructure).
- Lack of broadband infrastructure contributes to a gap in reliable and affordable internet options for households. Residents experience extremely high broadband installation fees (e.g., over \$1000 for line extension fees described in outreach to BroadbandOhio) and monthly costs, as well as frequent service disruptions. As a result, some residents opt out of purchasing internet service and travel to locations outside their homes to access the internet.
- Residents' daily life is often disrupted by unreliable internet access. They often struggle to get consistent, affordable internet that can support multiple users. Particularly impacted groups include remote workers, students, families, and farmers.
  - Residents often travel to libraries or other public places to access the internet.
  - Some residents rely on hotspots or connections with limits on data usage, making activities that require additional bandwidth or high amounts of data expensive or unfeasible.
- Lack of workforce capacity and connectivity infrastructure inhibits the deployment of broadband programs. Local organizations lack the capacity and resources to apply for and deploy broadband programs. (For example, they may lack the time to complete program applications, or they may not have sufficient digital support staff.) Additionally, many existing broadband networks cannot adequately support new programs; for example, limited at-home networks cannot support additional devices that would be provided in device roll-out initiatives.
- Digital navigators can promote community trust and facilitate digital adoption. Lack of institutional trust limits the effectiveness of benefits programs (such as the ACP) and programs to lend or give devices. Trusted digital navigators and community organizations (such as school districts and senior centers) can help to explain the ACP clearly and provide support with the complex application process. Word of mouth among community members is highly effective in spreading awareness of the ACP and other digital benefits programs.

The below tables provide detailed findings by stakeholder entity type and by region. These findings will be combined and incorporated into the BEAD Five-Year Action Plan.

Table 4: Key findings: ISPs and private businesses

Topic	Findings
Barriers	<p>Permitting/right of way</p> <ul style="list-style-type: none"> <li>• Railroads and pole attachments are a drain on time and investment for providers across the state.</li> <li>• Pole permits can take up to 18 months.</li> <li>• Make-ready costs can be so high that it is cheaper to go underground, which can put other utilities (gas, water) at risk.</li> </ul> <p>Materials</p> <ul style="list-style-type: none"> <li>• Costs associated with timelines, permitting, etc. are exacerbated by American-made requirements.</li> </ul> <p>Labor</p> <ul style="list-style-type: none"> <li>• The labor shortage will likely worsen.</li> <li>• Three challenges affect labor: 1) there is an insufficient number of training programs; 2) the industry is not marketed enough as a viable career option; 3) training people now will not provide enough people to meet demand, nor will it train them fast enough for this work. Hiring is already difficult, and all funds have not yet arrived.</li> <li>• Challenges described by smaller providers</li> <li>• Match requirements (Grants and letters of credit would help.)</li> </ul> <p>Technology</p> <ul style="list-style-type: none"> <li>• Opinions vary on whether deployment should be almost 100 percent fiber, or if it should be a mix of fiber and wireless.</li> </ul> <p>Device quality</p> <ul style="list-style-type: none"> <li>• Outdated devices do not meet users' needs and can be even more complex than new ones – which is especially a problem for people who are not digitally savvy.</li> </ul> <p>Affordability</p> <ul style="list-style-type: none"> <li>• The uptake on the ACP has been low, despite ISP-driven marketing. Information must come from a <b>trusted source</b> (such as digital navigators) to alleviate concerns.</li> </ul>

Topic	Findings
	<ul style="list-style-type: none"> <li>• E-rate barriers restrict what ISPs can do in schools to promote ACP.</li> <li>• Individuals who cannot afford to upgrade devices struggle to complete tasks using outdated technology (job applications, standardized tests, etc.).</li> <li>• Fear of technology deters some populations from adopting digital tools; they have concerns about spying, sales scams, etc.</li> <li>• Some are concerned about ACP ending. Generating trust among skeptical populations is difficult when the program could cease to exist.</li> </ul>
Programs and partners	<p>ACP outreach</p> <ul style="list-style-type: none"> <li>• ISPs are working with third parties to share information about ACP to families who participate in the free lunch program.</li> <li>• Local, in-person events are most effective, for example “Turkey Tech Tailgate” (door knocking doesn’t work).</li> </ul> <p>Digital navigators</p> <ul style="list-style-type: none"> <li>• Digital navigators can assist with ACP awareness and applications as well as with digital literacy. They can also encourage safe adoption, installation, and use of technology.</li> </ul>
Potential solutions and collaboration	<ul style="list-style-type: none"> <li>• Develop a “best practice” guide to help ISPs</li> <li>• Work with Society of Cable Telecommunications and retired telecom workers as instructors in workforce training programs</li> <li>• ISPs are enthusiastic about “digital navigators.”</li> <li>• BBOH/ODOT’s streamlining permit process via centralization has had a positive impact.</li> </ul>

Table 5: Key findings: local government

Topic	Findings
Barriers	<ul style="list-style-type: none"> <li>• Municipalities historically could not apply for funding (ORBEG); BEAD criteria will remedy this.</li> <li>• Rural areas have a nearly impossible financial case to make to ISPs when pitching areas with low population density.</li> </ul>

Topic	Findings
	<ul style="list-style-type: none"> <li>• The BEAD match requirement is a barrier for small, low-income communities; they could not pay back even a 0 percent interest loan.</li> <li>• Broadband not only benefits citizens but also presents an opportunity to streamline operations and make the city more efficient (For example, providing utility bills online can reduce a city’s administrative work by half – especially in cities like Dayton, which has duplicative systems.)</li> <li>• Barriers are largely determined by whether the community is rural or urban; rural communities often lack availability, while urban entities are more concerned about affordability and digital skills.</li> <li>• Both rural and urban areas lack providers of fast, reliable internet and/or affordable options. They feel that they are at the mercy of one provider and have no leverage.</li> </ul>
Programs and partners	<ul style="list-style-type: none"> <li>• PCs for People is available in some areas, but other areas have mainly recycled devices that cannot be refurbished.</li> <li>• PPPs are generally the best way for municipalities to get involved with infrastructure grants, but the challenge is having a sufficient subsidy to attract private entities.</li> <li>• Most schools provide devices, but a single device and/or hotspot often cannot meet an entire family’s needs.</li> </ul>
Potential solutions and collaboration	<ul style="list-style-type: none"> <li>• A “broadband-ready guide” to help municipalities make their community more attractive to providers.</li> <li>• Alternate ways for PPPs to meet the matching requirement, including waivers, grants, or allowing ISP to match via in-kind services such as digital training</li> <li>• Allowing municipalities to apply for grants (solved)</li> </ul>

Table 6: Key findings: Non-profits and community organizations

Topic	Findings
Barriers	<p>Deployment</p> <ul style="list-style-type: none"> <li>• Community stakeholders expressed concern that the broadband maps show a significant number of locations as served that are truly unserved. Very few internet companies are deploying or delivering</li> </ul>

Topic	Findings
	<p data-bbox="516 254 1349 327">broadband in rural areas, due to the high costs and low return on investment.</p> <p data-bbox="467 344 623 380">Topography</p> <ul data-bbox="467 428 1398 590" style="list-style-type: none"> <li data-bbox="467 428 1398 590">• Rural areas’ topography was cited as a barrier to broadband access and limits these areas’ options among ISPs and internet services. Additionally, within neighborhoods internet connectivity often varies, leaving some homes without service.</li> </ul> <p data-bbox="467 604 769 640">Outdated infrastructure</p> <ul data-bbox="467 688 1398 892" style="list-style-type: none"> <li data-bbox="467 688 1398 892">• Much of the physical infrastructure (such as poles and wiring) across the state was installed years ago and was not built to support today’s high-bandwidth, high-speed broadband service. Additionally, this outdated infrastructure often cannot withstand the impact of inclement weather.</li> </ul> <p data-bbox="467 907 651 942">Digital literacy</p> <ul data-bbox="467 991 1398 1194" style="list-style-type: none"> <li data-bbox="467 991 1398 1194">• For aging populations, limited digital literacy prevents broadband adoption due to fear of technology and lack of comfort with certain digital services (such as banking and healthcare). Additional technical support is required to help with digital navigation, online fraud awareness, and device utilization.</li> </ul> <p data-bbox="467 1209 672 1245">Labor shortages</p> <ul data-bbox="467 1293 1382 1367" style="list-style-type: none"> <li data-bbox="467 1293 1382 1367">• A shortage of substitute teachers prevents full-time teachers from attending digital skills training offered by community organizations.</li> </ul> <p data-bbox="467 1381 688 1417">Lack of resources</p> <ul data-bbox="467 1465 1398 1894" style="list-style-type: none"> <li data-bbox="467 1465 1398 1627">• Significant time, training, and other resources are required to improve digital adoption and literacy. Organizations noted that their greatest barrier is the time and support required to provide effective digital training.</li> <li data-bbox="467 1642 1398 1803">• Residents regularly require digital assistance or support outside traditional working hours. Individuals who work full-time jobs are sometimes unable to access programs or in-person support that are offered during the traditional workday.</li> <li data-bbox="467 1818 1398 1894">• Local organization leaders also noted that a lack of expertise in digital inclusion is a barrier to broadband program deployment. Participants</li> </ul>

Topic	Findings
	<p>said they were unaware of the broadband programs and subsidies available to the communities that they serve.</p> <p>Community outreach</p> <ul style="list-style-type: none"> <li>Community organizations noted that barriers to more widespread adoption of programs included the inability to reach all residents who need support, a lack of trust among residents, and an inability to meet residents where they are physically located.</li> </ul> <p>Transportation</p> <ul style="list-style-type: none"> <li>Transportation is a major barrier to internet access in some areas. Convenient transportation is often lacking, making it difficult for residents to access community anchor institutions for internet service.</li> </ul>
Programs and partners	<p>Access</p> <ul style="list-style-type: none"> <li>During COVID, school districts across the state provided students with Chromebooks and hotspots to increase internet access (by placing school buses with hotspots in parking lots throughout the district, for example).</li> <li>A local workers' union has created programs to boost adoption of broadband in rural areas. They have also purchased laptops to lend to the aging Ohioans.</li> <li>The Ohio Connectivity Champions support residents in applying for the ACP and registering for the Northstar Digital Literacy Project.</li> <li>The Management Council has digital navigators who regularly go to community spaces (such as jail lobbies and community centers) to help residents sign up for ACP and connect to the internet.</li> <li>The Financial Opportunities Center (FOC) has the UNIFI Digital Connectivity Program, a four-pronged digital connectivity program consisting of: <ul style="list-style-type: none"> <li>A lending library that lends laptops, hotspots, and tablets to local organizations (City Mission of Findlay, Women's Resource Center, and NAMI)</li> </ul> </li> </ul> <p>ACP enrollment support services</p> <ul style="list-style-type: none"> <li>Digital literacy services to walk clients through tailored, customizable courses related to digital literacy, skills, and device use.</li> <li>An online resource center.</li> </ul>

Topic	Findings
	<p data-bbox="467 254 565 285">Devices</p> <ul data-bbox="467 338 1409 1213" style="list-style-type: none"> <li data-bbox="467 338 1252 411">• School districts in rural regions purchase devices (such as Chromebooks) for students to facilitate their learning.</li> <li data-bbox="467 432 1365 506">• The Management Council piloted a program to lend Chromebooks and hotspots to low-income individuals.</li> <li data-bbox="467 527 1398 600">• The Ohio State University Extension received a grant for 25 iPads that can be distributed to students in a national youth program.</li> <li data-bbox="467 621 1409 779">• They use a train-the-trainer model in which trusted trainers go out into the community and support older adult business owners who are interested in integrating more technology into their business operations.</li> <li data-bbox="467 800 1260 873">• They also offer a program to teach business owners about QuickBooks’ transition into a cloud-based platform.</li> <li data-bbox="467 894 1398 1010">• The Ability Center of Greater Toledo used CARES Act funding to stand up a digital device-lending program that provides tablets to clients and community members.</li> <li data-bbox="467 1031 1382 1213">• The Education Service Center of Central Ohio purchases devices in bulk (such as Chromebooks) to lend to schools that cannot afford them. Additionally, they coordinate bulk purchasing across multiple school districts so that schools can receive better pricing on their devices.</li> </ul> <p data-bbox="467 1241 618 1272">Digital skills</p> <ul data-bbox="467 1325 1414 1766" style="list-style-type: none"> <li data-bbox="467 1325 1398 1440">• The Management Council has conducted digital literacy classes for aging residents, low-income residents, and incarcerated populations ahead of re-entry.</li> <li data-bbox="467 1461 1393 1535">• The Ohio Consumer Counsel is promoting programs that offer digital literacy and training to people in underserved communities.</li> <li data-bbox="467 1556 1333 1629">• The Education Service Center of Central Ohio offers programs to digitally develop teachers’ skills in under-resourced areas.</li> <li data-bbox="467 1650 1317 1682">• Smart Columbus provides multiple digital navigator programs.</li> <li data-bbox="467 1703 1414 1766">• The Ohio Small Business Development Center (SBDC) offers training in digital skills and internet safety.</li> </ul>

Topic	Findings
	<ul style="list-style-type: none"> <li>The Toledo Lucas County Public Library (TLCPL) recently began the Northstar Digital Literacy Project, a free digital skills program for all community members with a library card.</li> </ul>
<p>Potential solutions and collaboration</p>	<p>Access</p> <ul style="list-style-type: none"> <li>Expand program offerings and resources at community nonprofits to offer standardized digital readiness and digital skills programs</li> <li>Provide internet services in places like churches that have built-in services and community leaders whom residents can utilize for assistance</li> <li>Ensure that community anchor institutions with broadband access are strategically placed and accessible by foot (within a 10-15-minute walking distance, for example), particularly for rural regions with limited transportation options</li> <li>Set up centrally located access points for residents to connect to the internet in trusted locations (such as firehouses, gas stations, schools, and senior centers) within each community</li> <li>Use physical materials (such as paper copies) alongside digital materials to ensure that local organizations can share resources with residents</li> </ul> <p>Programming</p> <ul style="list-style-type: none"> <li>Offer more in-home digital literacy and skills programs to facilitate accessibility (by saving travel time, removing transportation barriers, and offering greater comfort, for example), especially for older populations and individuals with disabilities</li> <li>Provide technological support and digital literacy resources through multiple channels (in-person, telephone-guided, and digitally) to facilitate accessibility and individual service</li> <li>Implement peer-to-peer connection and grassroots efforts to support the roll-out of digital navigation, literacy, and device programs</li> </ul> <p>Social determinants of health</p> <ul style="list-style-type: none"> <li>Address data interoperability issues and data-sharing processes alongside broadband initiatives. Survey participants noted that, for industries using technological tools (such as electronic health records in healthcare), residents sometimes have difficulty sharing data across</li> </ul>

Topic	Findings
	<p>tools. Tackling this issue may also help to address some of the social determinants of good health.</p> <ul style="list-style-type: none"> <li>Promote partnerships between local broadband-related organizations and health networks to create digital training courses in health navigation.</li> </ul>

Table 7: Key findings: Ohio residents

Topic	Findings
Barriers	<p>Physical infrastructure</p> <ul style="list-style-type: none"> <li>In rural regions, residents noted that the topography and old physical infrastructure contribute to deployment issues. Much of the equipment and physical infrastructure does not function consistently in some weather conditions.</li> <li>Residents have to rely on multiple sources of internet services given the instability of their home internet.</li> </ul> <p>Access</p> <ul style="list-style-type: none"> <li>Families must take turns using their internet services, sometimes obligating them to travel to locations with public Wi-Fi (such as libraries). More access to public Wi-Fi is needed for community members.</li> <li>Increased access to task-appropriate devices (such as laptops and tablets) would enable additional educational opportunities and broadband-related training.</li> </ul> <p>Lack of resources</p> <ul style="list-style-type: none"> <li>Residents noted that a lack of resources inhibits digital skills development, given the significant amount of time, training, and other resources (such as one-on-one training) required to improve digital literacy and skills.</li> </ul> <p>Mistrust of government</p> <ul style="list-style-type: none"> <li>In some communities, broadband and device adoption is limited by mistrust of institutions.</li> <li>For the ACP and device-lending programs, community members sometimes assume that devices come with a “catch” (that is, they are</li> </ul>

Topic	Findings
	<p>not actually free) or will be used in exploitative or predatory ways (such as spying).</p>
<p>Programs and partners</p>	<p>Access</p> <ul style="list-style-type: none"> <li>• The Ohio Connectivity Champions support residents in applying for the ACP.</li> <li>• The Toledo Lucas County Public Library founded the Greater Toledo Digital Equity Coalition (GTDEC), which has over 50 members representing various community and professional organizations.</li> <li>• The Cleveland Metropolitan School District (CMSD) offers a program to provide internet access, devices, and software for students and their families. For students graduating or aging out of the program, CMSD has partnered with PCs for People to provide refurbished devices and assist families with applications for the ACP. <ul style="list-style-type: none"> <li>– The CMSD also spreads awareness and information about the ACP to its students and their families through various distribution channels (such as social media, posters, the school library, and notes to parents).</li> </ul> </li> <li>• The Digital Inclusion Program at the Cuyahoga Metropolitan Housing Authority (CMHA) shares information about the ACP at community-based events by deploying digital navigators into the community.</li> </ul> <p>Devices</p> <ul style="list-style-type: none"> <li>• Local school districts provide digital devices, such as Chromebooks, to students.</li> <li>• Libraries provide hotspots for residents to borrow or to serve as public Wi-Fi access points, which are especially popular with students.</li> <li>• Employers provide laptops and hotspots to allow for remote work.</li> </ul> <p>Digital skills</p> <ul style="list-style-type: none"> <li>• Rhodes State College offers digital literacy classes for individuals learning how to use certain devices. <ul style="list-style-type: none"> <li>– Some small businesses provide technical and digital skills training to clients.</li> <li>– Digital skills courses are offered at senior facilities within the Cleveland community.</li> <li>– ASC3’s digital navigator program helps participants apply digital training and learning in real-world environments.</li> </ul> </li> </ul>

Topic	Findings
<p>Potential solutions and collaboration</p>	<p>Access</p> <ul style="list-style-type: none"> <li>• Leverage the positioning of community anchor institutions (such as hair salons, laundromats, and coffee shops) for outreach and program delivery</li> <li>• Leverage community-based ISPs to ensure that community members are engaged in broadband decision-making</li> <li>• Use both physical (such as paper copies) and digital materials to ensure that local organizations can share resources with residents across multiple channels.</li> <li>• Develop comprehensive strategies for digital literacy and navigation programming to address barriers to access (by taking such steps as providing shuttle buses to training to address transportation barriers)</li> <li>• Form additional partnerships with farm technology companies in rural areas to help distribute targeted information to rural residents and farmers.</li> </ul> <p>Programming</p> <ul style="list-style-type: none"> <li>• Design a variety of digital training and program offerings to provide training tailored to the needs of specific subpopulations (such as students, working adults, and seniors).</li> <li>• Use one-on-one digital training methods to meet residents' specific needs for digital literacy and technological support.</li> <li>• Leverage a train-the-trainer model with trusted community leaders to provide additional training on digital skills and cybersecurity to increase adoption.</li> <li>• Implement additional device-sharing and device literacy programs in partnership with schools, libraries, and community centers.</li> <li>• Open grant eligibility to local governments to allow for more informed, targeted broadband expansion</li> <li>• Improve messaging and community awareness on the benefits of digital skill programs</li> <li>• Provide more flexible funding for residents in programs like ACP so that they can buy gently used devices, which may make high-quality devices more affordable</li> <li>• Promote access to devices at cheaper cost by purchasing them in bulk at a discount for schools or organizations to rent</li> </ul>

Topic	Findings
	<p>Resources</p> <ul style="list-style-type: none"> <li>• Ensure that community nonprofits providing public-facing services and programming have adequate Wi-Fi equipment (such as routers and modems) and internet access to enable digital participation in their services (such as medical clinic services, training, and live-streaming of meetings)</li> <li>• Providing additional funding for trusted digital navigators and key community leaders could raise awareness of programming.</li> </ul>

Takeaways by region

Table 8: Key findings by listening session location

Region	Findings
Mt Gilead (Central)	
Barriers	<p>Permitting/right of way</p> <ul style="list-style-type: none"> <li>• Right-of-way codes vary by city and can delay ISP efforts to expand broadband infrastructure, which is particularly challenging for railroads and state waterways.</li> </ul> <p>Affordability</p> <ul style="list-style-type: none"> <li>• Uptake on ACP has been low, despite ISP-driven marketing. Information needs to come from a trusted source (such as digital navigators) to alleviate concerns.</li> <li>• E-rate barriers restrict what ISPs can do in schools to promote ACP.</li> <li>• Individuals who cannot afford to upgrade devices struggle to complete tasks (such as job applications and standardized tests) using outdated technology.</li> </ul> <p>Digital skills/literacy</p> <ul style="list-style-type: none"> <li>• Subscribers do not know what upload/download speeds they need and do not understand whether their issues come from service</li> </ul>

Region	Findings
	<p>problems or their router’s placement, leading them to overpay for services or preventing them from taking advantage of digital tools.</p> <ul style="list-style-type: none"> <li>• Fear of technology deters some populations from adopting digital tools.</li> </ul>
<p>Programs and partners</p>	<p>ACP outreach</p> <ul style="list-style-type: none"> <li>• ISPs work with third parties to share information about ACP with families who participate in the free lunch program.</li> <li>• Device giveaways have been tested, but they create new issues: users do not always get devices that take gig service, or they don’t know how to use the device and might sell it instead.</li> <li>• Local, in-person events are most effective – for example, the “Turkey Tech Tailgate” event.</li> <li>• Digital navigators can assist with ACP awareness and applications and with digital literacy. They can encourage safe adoption, installation, and use of technology.</li> </ul>
<p>Potential solutions and collaboration</p>	<ul style="list-style-type: none"> <li>• Given the lack of standardization in right-of-way codes, ISPs could collaborate on a best-practice code that BBOH can share locally.</li> <li>• Expand the numbers of “digital navigators” who have a local presence and are trusted; these navigators should not be associated with ISPs.</li> </ul>



Rio Grande (Southeast)	
Barriers	<p>Affordability</p> <ul style="list-style-type: none"> <li>Residents must pay \$70-\$100 a month for broadband from the only ISP serving their county.</li> </ul> <p>Unreliability</p> <ul style="list-style-type: none"> <li>The service is not reliable (for example, it is frequently down for long periods) and does not meet the standards for high-speed internet. This impacts residents' and business owners' ability to use cloud-based platforms.</li> </ul> <p>Topography</p> <ul style="list-style-type: none"> <li>In rural areas, physical infrastructure equipment (such as satellites) does not function consistently during inclement weather.</li> </ul> <p>Accessibility</p> <ul style="list-style-type: none"> <li>For those who are unserved or underserved, residents have to travel long distances to access public Wi-Fi.</li> </ul>
Programs and partners	<p>Device distribution</p> <ul style="list-style-type: none"> <li>School districts in rural regions distribute Chromebooks to students to facilitate learning and internet access.</li> </ul> <p>Digital navigators</p> <ul style="list-style-type: none"> <li>The OSU Extension Office deploys trusted trainers into the community and supports older business owners who are interested in integrating more technology into their business operations.</li> <li>The Ohio Small Business Development Center (SBDC) currently offers training on digital skills and internet safety.</li> </ul>
Potential solutions and collaboration	<ul style="list-style-type: none"> <li>Given the lack of at-home internet access for students, additional partnerships could be established with community anchor institutions to increase access to digital devices and the internet.</li> <li>As digital literacy is often low among older adults, a train-the-trainer model with trusted community leaders can be deployed to provide training in digital skills and cybersecurity.</li> </ul>

Cambridge (Southeast)	
Barriers	<p>Affordability</p> <ul style="list-style-type: none"> <li>• Many residents cannot afford to keep their technology up to date (by buying new devices, for example). Additionally, residents lack understanding of the different cost options available for internet plans and devices.</li> </ul> <p>Access</p> <ul style="list-style-type: none"> <li>• Residents in the region, especially in rural areas, experience extremely unreliable internet service. There are “dead zones” in coverage, or the internet sometimes cuts out completely, for example.</li> </ul> <p>Digital literacy</p> <ul style="list-style-type: none"> <li>• A lack of digital skills and understanding, especially among senior individuals, hinders internet adoption. Many older residents are hesitant to complete digital tasks or adopt new devices (such as smartphones).</li> </ul>
Programs and partners	<p>Digital skills</p> <ul style="list-style-type: none"> <li>• Senior centers in the region provide digital literacy courses and workshops.</li> </ul>
Potential solutions and collaboration	<ul style="list-style-type: none"> <li>• Establish more partnerships with local organizations to provide digital navigators in senior centers who demonstrate device usage and help residents navigate among internet providers and plans</li> <li>• Offer “loaner” tablets and devices at community locations (such as libraries, schools, churches, and senior centers) to alleviate cost barriers</li> <li>• Broaden the variety of available internet plans and senior discounts to mitigate cost barriers, especially for low-income residents</li> </ul>

## Xenia (Southwest)

Barriers	<p>Infrastructure gaps</p> <ul style="list-style-type: none"><li>• There are disparities in broadband access and connectivity within neighborhoods; certain houses are unserved despite their proximity to covered houses.</li><li>• Residents are quoted extremely high fees for an ISP to begin providing service to their home.</li></ul> <p>Lack of providers</p> <ul style="list-style-type: none"><li>• Residents either have one option or, if they have multiple options, the speeds are too low to consider utilization.</li></ul> <p>Privacy concerns</p> <ul style="list-style-type: none"><li>• Residents are reluctant to sign up for the ACP or receive devices due to fears that the government will see their data.</li></ul> <p>Digital skills/literacy</p> <ul style="list-style-type: none"><li>• Resources to help organizations educate people on privacy and general digital skills are limited; schools are also understaffed in their IT resources.</li><li>• Some residents did not understand the benefits of having internet services, which prevents some from adopting those services.</li></ul> <p>Affordability</p> <ul style="list-style-type: none"><li>• Some residents hesitate to sign up for the ACP when there is no guarantee that the funds will continue.</li></ul>
Programs and partners	<p>Digital navigators</p> <ul style="list-style-type: none"><li>• The Ohio Connectivity Champions supports residents in applying to the ACP.</li></ul>

Potential solutions and collaboration

- Since internet adoption is inhibited by a lack of local resources, internet services can be provided in places like churches, which already have built-in services and community leaders.
- To address reluctance to adopt internet services and devices due to government mistrust, peer-to-peer connection and grassroots efforts can support the roll-out of digital navigation, literacy, and device programs.
- Wider internet availability in community institutions would give more people access to the internet and would help those without devices of their own.
- Some entities, such as National Church Residences, are actively looking for partners to assist with digital skills and literacy training for their residents.



## Toledo (Northwest)

Barriers	<p>Government mistrust</p> <ul style="list-style-type: none"><li>• In some communities, broadband and device adoption is limited by mistrust of broadband partners who appear to represent the interests of certain systems (such as government, health care, and education) or big businesses.</li></ul> <p>Physical infrastructure</p> <ul style="list-style-type: none"><li>• Some areas within the Northwest region have outdated broadband infrastructure (such as wires, poles, lead cable, and pulp insulation) that will require updates to ensure adequate coverage.</li><li>• Community members are frustrated by a lack of provider options; there is only one ISP throughout most of the Northwest region.</li></ul> <p>Lack of resources</p> <ul style="list-style-type: none"><li>• Several organizations noted that their greatest barrier is the amount of time and support required to provide effective digital training.</li><li>• Individual support is needed to accommodate various skill levels and differing digital literacy, particularly when helping someone sign up for the ACP or providing them with a device.</li></ul>
Programs and partners	<p>Device distribution</p> <ul style="list-style-type: none"><li>• The Ability Center of Greater Toledo used CARES Act funding to stand up a digital device lending program that provides tablets to clients and community members.</li></ul> <p>Digital literacy</p> <ul style="list-style-type: none"><li>• The Toledo Lucas County Public Library (TLCPL) recently established the Northstar Digital Literacy Project, a free program for all community members with a library card.</li><li>• Additionally, they started the Greater Toledo Digital Equity Coalition (GTDEC), which has over 50 members who represent various community and professional organizations.</li></ul> <p>Access</p>

	<ul style="list-style-type: none"> <li>• The Ohio Connectivity Champions provide support for residents to apply for the ACP and register for the Northstar Digital Literacy Project</li> </ul>
<p>Potential solutions and collaboration</p>	<ul style="list-style-type: none"> <li>• Leverage community-based ISPs to engage community members in broadband decision-making</li> <li>• Offer more in-home digital literacy and skills programs to expand accessibility (by saving travel time, removing transportation barriers, and providing greater comfort, for example), especially for older populations and individuals with disabilities</li> <li>• Local organizations have found that tablets are the most appropriate devices for digital lending and giving programs, because they are easy to obtain and suitable for people of varying digital skill levels.</li> </ul>



## Findlay (Northwest)

Barriers	<p>Lack of transportation</p> <ul style="list-style-type: none"><li>• Transportation is a major barrier to internet access in the Findlay-Hancock region. Convenient transportation is lacking, making it difficult for residents to access community anchor institutions for internet service.</li></ul> <p>Lack of workforce capacity</p> <ul style="list-style-type: none"><li>• Residents often need digital assistance or support outside traditional working hours. Individuals who work full-time jobs sometimes cannot access programs or in-person support offered during the traditional workday.</li></ul>
Programs and partners	<p>Access</p> <ul style="list-style-type: none"><li>• The Financial Opportunities Center (FOC) has the UNIFI Digital Connectivity Program, a four-pronged digital connectivity program consisting of:<ul style="list-style-type: none"><li>A lending library</li><li>• ACP enrollment services and connected coaching to assist clients in enrolling in the ACP service and connecting to a data or broadband plan</li><li>• Digital literacy services to walk clients through tailored and customizable courses related to digital literacy, skills, and device use</li><li>• An online resource center</li></ul></li></ul> <p>Device distribution</p> <ul style="list-style-type: none"><li>• Through its lending program, the FOC has lent devices to many organizations. For example:<ul style="list-style-type: none"><li>• City Mission of Findlay (a local homeless shelter) borrowed three desktops, a hotspot, and a laptop.</li><li>• The Women’s Resource Center borrowed tablets to facilitate their intake processes.</li><li>• NAMI borrowed a laptop so that clients could have access to a device while at the NAMI facility.</li></ul></li></ul>

<p>Potential solutions and collaboration</p>	<ul style="list-style-type: none"> <li>• Ensure that community anchor institutions with broadband access are strategically placed and accessible by foot (within a 10-15-minute walking distance, for example), particularly for rural regions with limited transportation options</li> <li>• Trusted community organizations for underrepresented populations could offer digital connectivity programs along with various other services they already provide (such as hosting an information session about ACP at the conclusion of a housing voucher briefing).</li> <li>• Offering instructions for ACP, digital device lending, and digital literacy programs must consider language needs; languages spoken in Northwest community include Spanish, Haitian Creole, and Ukrainian.</li> </ul>
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Cleveland (Northeast)

<p>Barriers</p>	<p>Affordability</p> <ul style="list-style-type: none"> <li>• Few affordable broadband options are available, especially for retirees or individuals who make slightly above the income limits for ACP.</li> </ul> <p>Mistrust</p> <ul style="list-style-type: none"> <li>• Many community members are wary of broadband programs like the ACP because they seem “too good to be true.” Additionally, some individuals hesitate to trust ISPs because the companies have not historically expressed interest in the community’s basic needs and concerns.</li> <li>• Low-quality devices received through ACP or other giving and lending programs erode trust and discourage individuals who are seeking better device access and broadband adoption.</li> </ul> <p>Digital literacy</p> <ul style="list-style-type: none"> <li>• Community organizations noted that their primary challenge is breaking through clients’ phobias about digital opportunities. They said that clients may not be fully aware of digital devices’ value and are therefore reluctant to buy or use them.</li> </ul>
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<p>Programs and partners</p>	<p>Digital literacy</p> <ul style="list-style-type: none"> <li>• ASC3’s digital navigator program helps participants apply digital training and learning in real-world environments.</li> <li>• Digital skills courses are offered at senior facilities within the Cleveland community. Residents shared that these classes frequently have the most engaged and most excited participants.</li> </ul> <p>Access</p> <ul style="list-style-type: none"> <li>• The Digital Inclusion Program at the Cuyahoga Metropolitan Housing Authority (CMHA) shares information about the ACP at community-based events by deploying digital navigators into the community.</li> <li>• The Cleveland Metropolitan School District (CMSD) offers a program to provide internet access, devices, and software for students and their families. For students graduating or aging out of the program, CMSD has partnered with PCs for People to provide refurbished devices and assist families with applications for the ACP.</li> <li>• The CMSD also spreads awareness and information about the ACP to its students and their families through various distribution channels (such as social media, posters, the school library, and notes to parents).</li> </ul>
<p>Potential solutions and collaboration</p>	<ul style="list-style-type: none"> <li>• Ensure that community members can readily access support (by asking questions about devices and ACP applications, for example)</li> <li>• Leverage the positioning of community anchor institutions (such as hair salons, laundromats, and coffee shops) for outreach and program delivery.</li> <li>• Design a variety of digital training and program offerings to provide instruction tailored to specific subpopulations’ needs (such as students, working adults, and seniors)</li> <li>• Participants noted that, among industries that use technological tools (such as electronic health records in healthcare), residents sometimes experience limitations in data-sharing and interoperability across tools. Addressing data interoperability and sharing processes along with broadband initiatives may also help to address some of the social determinants of good health.</li> </ul>



## Youngstown (Northeast)

### Barriers

#### Lack of local funding

- Many local organizations do not have the resources or funds to deploy basic digital literacy courses and refurbished device programs. As a result, many residents must travel to major cities to access broadband programs (like Cleveland and Pittsburgh).

#### Device access

- Many residents do not use devices because they doubt the quality of refurbished devices. Participants noted that easier-to-use devices (such as Apple products) are more expensive.

#### Awareness of programs

	<ul style="list-style-type: none"> <li>• Often local organizations do not have the marketing resources to ensure their broadband programs and subsidies appear early in search engine results (such as Google searches)</li> </ul> <p>Infrastructure</p> <ul style="list-style-type: none"> <li>• Residents, especially in rural areas, lack options in high-speed internet providers. Moreover, internet service and speeds vary greatly, depending on the location of a household within the region.</li> </ul> <p>Digital literacy</p> <ul style="list-style-type: none"> <li>• A lack of digital literacy and navigation skills was noted as a barrier to broadband utilization, especially among older adults and students. Many older individuals and people without digital literacy cannot complete digital tasks, or they rely on other people to get technological support.</li> <li>• Some residents may not understand the value of having internet services and therefore do not pursue these services.</li> </ul> <p>Unreliability</p> <ul style="list-style-type: none"> <li>• Participants noted that internet service is extremely unreliable throughout the region (for example, teleconferencing calls may drop off, or residents may be unable to send emails). Internet service will cut out in some areas for prolonged periods, leaving many residents without at-home Internet access.</li> </ul>
<p>Programs and partners</p>	<p>Digital literacy</p> <ul style="list-style-type: none"> <li>• The Adult Basic and Literacy Education (ABLE) program provides basic digital literacy and skills courses to residents in the state.</li> <li>• Oak Hill Collaborative offers basic digital navigation and literacy courses.</li> <li>• Previously, the Farm Bureau offered digital literacy sessions for three to four hours a day to teach members how to set up and utilize devices.</li> </ul> <p>Device distribution</p> <ul style="list-style-type: none"> <li>• Oak Hill Collaborative has a refurbished device roll-out initiative to provide residents with lower-cost laptops.</li> </ul>

	<p>Access</p> <ul style="list-style-type: none"> <li>• Oak Hill Collaborative offers support services for residents filling out ACP applications.</li> </ul>
<p>Potential solutions and collaboration</p>	<ul style="list-style-type: none"> <li>• Implement local broadband-related public service announcements to alleviate feelings of mistrust in the community.</li> <li>• To ensure that local organizations can apply for broadband funding, remove any requirement that an eligible organization must have previously received funding</li> <li>• Offer digital literacy courses at libraries that are related to specific topics – such as cooking – to increase community participation</li> <li>• To boost digital literacy, encourage technicians to provide residents with digital literacy training when installing at-home internet services</li> </ul>



Virtual (statewide)	
Barriers	<p>Lack of infrastructure</p> <ul style="list-style-type: none"> <li>• Lack of modern infrastructure and of strong internet connectivity (covering the entire property) inhibits both economic opportunities (such as the use of advanced technology for precision agriculture, remote working, and video conferencing) and daily activities (such as telehealth, schoolwork, and streaming).</li> <li>• Existing services often cannot support multiple users at once.</li> </ul> <p>Lack of resources</p> <ul style="list-style-type: none"> <li>• Deficiency of resources and workforce capacity is an obstacle to device roll-out initiatives. Local organizations' staff members do not have the capacity to support community members with digital navigation and technical support questions.</li> </ul> <p>Access</p> <ul style="list-style-type: none"> <li>• Across the state, communities have differing access to broadband options (such as fixed wireless and fiber) and varying costs for associated broadband.</li> </ul>
Programs and partners	<p>Device distribution</p> <ul style="list-style-type: none"> <li>• Local organizations provide devices to community members who already have internet service set up.</li> <li>• Local libraries developed short- and long-term hotspot distribution programs to provide residents with stable and reliable internet services.</li> </ul> <p>Digital skills/literacy</p> <ul style="list-style-type: none"> <li>• Local telephone providers help aging individuals navigate their devices via telephone sessions.</li> <li>• The Columbus Metropolitan Library partners with Goodwill Columbus to provide technology classes.</li> <li>• Rhodes State College offers digital literacy classes for individuals learning how to use certain devices.</li> </ul>

Potential solutions and collaboration	<ul style="list-style-type: none"><li>• Ensure that community nonprofits providing public-facing services and programming have the appropriate Wi-Fi equipment (such as routers and modems) and internet access to allow for digital participation in their services (such as medical clinic services, training, and live streaming of meetings)</li><li>• Use physical (such as paper copies) and digital materials to ensure that local organizations can share resources with all residents</li></ul>
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# Appendix 2. List of Proposed Waivers

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Below includes the list of waivers BroadbandOhio intends to request from NTIA.

## **Letter of Credit**

BroadbandOhio intends to seek a waiver for the BEAD letter of credit requirement so that letters of credit can be requested at the discretion of the Ohio Broadband Expansion Program Authority. This is to ensure that smaller providers are not barred from participating in BEAD if they can otherwise prove financial stability. During listening sessions and the public comment period, participants have already raised that letter of credit requirements can become a dealbreaker, particularly for smaller ISPs. BroadbandOhio expects that a waiver for letter of credit requirements will help ensure wider participation from ISPs, increase competition, and thereby improve the quality of bids, which combined may ultimately help bolster effective BEAD outlay to reach universal service.

Instead of a blanket requirement for letters of credit, BroadbandOhio will assess the information provided for proof of financial stability (please see **2.4.11** for more details) to evaluate whether the applicant has sufficient financial stability to undertake the proposed project. Specifically, each applicant awarded BEAD program funds will enter into a grant agreement setting forth the terms and the conditions of the program grant. In addition to the grant agreement, BroadbandOhio may require a performance bond, letter of credit, or other financial assurance if determined that the completion of the project requires additional security based on its assessment of the complete application. BroadbandOhio may rescind an award of funds to a broadband provider for failure to execute a program grant agreement within 90 days of the determination of the authority to approve the provider's complete application.<sup>260</sup>

## **Requirement for certification by a professional engineer prior to application (partial waiver)**

BroadbandOhio intends to seek a waiver for the BEAD requirement to have the prospective subgrantee's application certified by a professional engineer, stating that the proposed network can deliver broadband service that meets the requisite performance requirements to all

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<sup>260</sup> [ORBEG Rules](#), Rule 122:30-1-05, "Ohio Residential Broadband Expansion Grant Program," BroadbandOhio, December 16, 2021

locations served by the Project, at the time of application. Ohio has 26,923 professional engineers in total as of July 2023.<sup>261</sup> Considering the anticipated scale of the BEAD deployment efforts and the timeline for subgrantee selection process, BroadbandOhio anticipates significant difficulties for potential subgrantees to obtain a certification prior to application submission, which could bottleneck the application process if certification is required at the time of application as a subgrantee qualification. BroadbandOhio also anticipates that requiring providers to incur the cost and time to receive a professional engineer certification before awards are not yet confirmed may be a strenuous requirement for ISPs, and thus may serve as a barrier to entry especially for smaller broadband providers that may not have an in-house professional engineer that can certify the project design. BroadbandOhio believes that this may in turn negatively impact provider interest in participation, degree of competition, and subsequent quality of applications, all of which may lower efficiency of BEAD outlay.

Instead, BroadbandOhio seeks to require the certification by a professional engineer after awards have been announced but prior to disbursement of funds. As part of the award agreement, BroadbandOhio will require all awarded subgrantees to obtain a certification from a professional engineer within 6 months of award announcement, and should an awarded subgrantee prove to be unable to obtain this certification by this time and needs to withdraw, it will be subject to a penalty of 20% of the originally awarded BEAD funding. BroadbandOhio will therefore expect potential subgrantees to have a sufficient understanding of the technical requirements for their proposed projects, and anticipates that their proposed projects at the time of application would still be largely in line with the final certified plan. As such, BroadbandOhio will strongly encourage all subgrantees to submit a near-final plan that is ready to be reviewed by a professional engineer if the project is selected.

### **Approval to not require BEAD deployment in areas of the state where the community has stated that they do not want high-speed internet access**

There are sizable populations in Ohio that do not leverage technology in their homes for religious reasons. According to Elizabethtown College, Ohio had the second highest Amish population among U.S. states as of 2022, who may not be interested in adopting broadband.<sup>262</sup> Amish BroadbandOhio survey respondents have also already expressed their desire to be exempt from universal service requirements.

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<sup>261</sup> <https://peps.ohio.gov/about/forms-and-publications/2022-2023-Individual-Roster>

<sup>262</sup> "Amish Population, 2022." Young Center for Anabaptist and Pietist Studies, Elizabethtown College. <http://groups.etown.edu/amishstudies/statistics/population-2022/>

BroadbandOhio therefore plans to request a BEAD deployment exemption from NTIA for locations in Amish populations that do not want broadband deployment for religious reasons. A potential amendment could be considered to include other groups beyond the Amish population.

### Match Requirement

While Ohio does not have any NTIA-designated high-cost areas, stakeholder engagement sessions have noted that there are high-cost deployment areas in Ohio (e.g., Appalachia) that may pose financial barriers for ISP participation if full match is required.<sup>263</sup>

Specifically, during the subsequent BEAD round only, BroadbandOhio plans to allow prospective providers to indicate whether they would need a partial waiver for the 25% match requirement should that be a barring factor for their participation in BEAD for the proposed project. Should there be a project area unit where there is an uncontested prospective subgrantee that is willing to deploy in the area but with the condition of a partial match waiver, BroadbandOhio will seek to partially waive the match requirement by requesting a waiver from NTIA. If, however, there is another application that does not require a waiver applying for the same PAU, that application will be prioritized over those projects that request a waiver. This step will help solicit providers that would be willing to participate if the waiver requirement could be negotiated, thereby helping solicit more applications toward reaching universal service per BEAD's objective.

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<sup>263</sup> See Five-Year Action Plan, Stakeholder Engagement for more detail.