# OBAE Introductions

- *Drew Lovelace – Operations Manager of the Office of Broadband Access and Expansion (OBAE)*
- *Alex Trujillo – Project Manager of the Office of Broadband Access and Expansion (OBAE)*

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Broadband Expansion Federal Digital Equity

Drew Lovelace, Operations Manager

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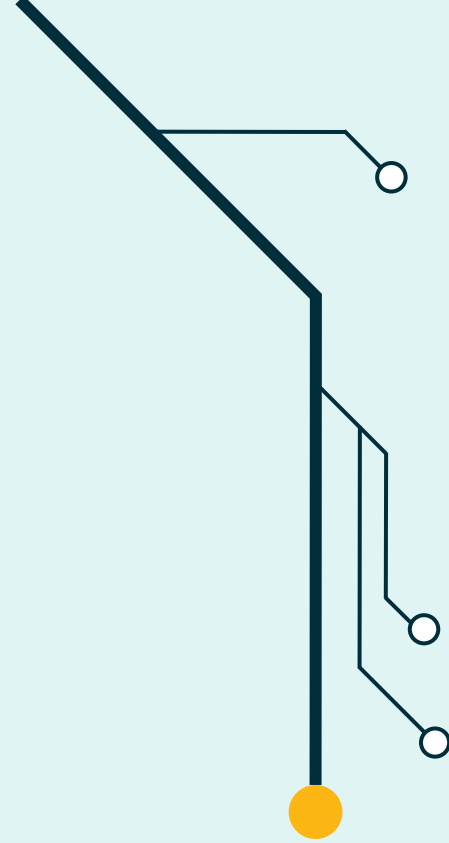
BEAD and DE Funding Timeline

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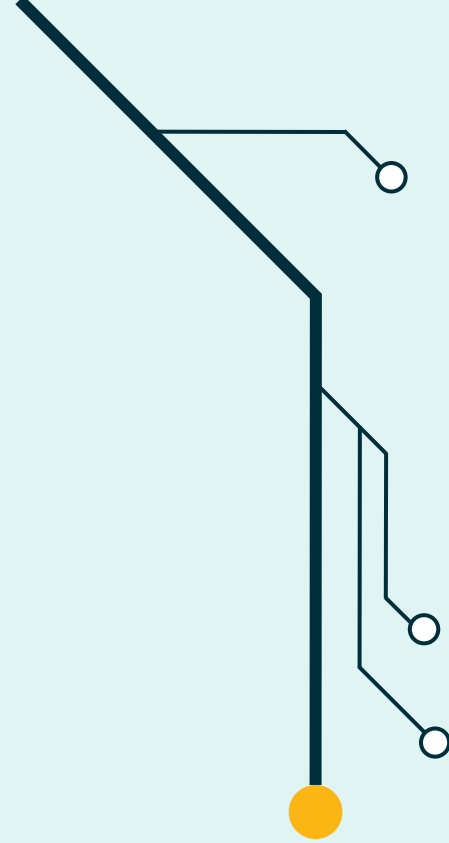
BEAD and DE Funding

Two major funding programs:

1. Broadband Equity Access and Deployment (BEAD)

2. Digital Equity (DE)

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Broadband Funding Priorities and Timeline

New Mexico will develop a statewide plan for expanding broadband to all in-state addresses

Funding priorities for fiber-to-the-premises deployment

1. **Unserved locations:** those that cannot get internet service at least 25/3 Mbps

2. **Underserved locations:** those that get internet service between 25/3 and 100/20 Mbps

3. **Community Anchor Institutions** (schools, libraries, hospitals, public safety): locations that cannot get 1Gbps internet
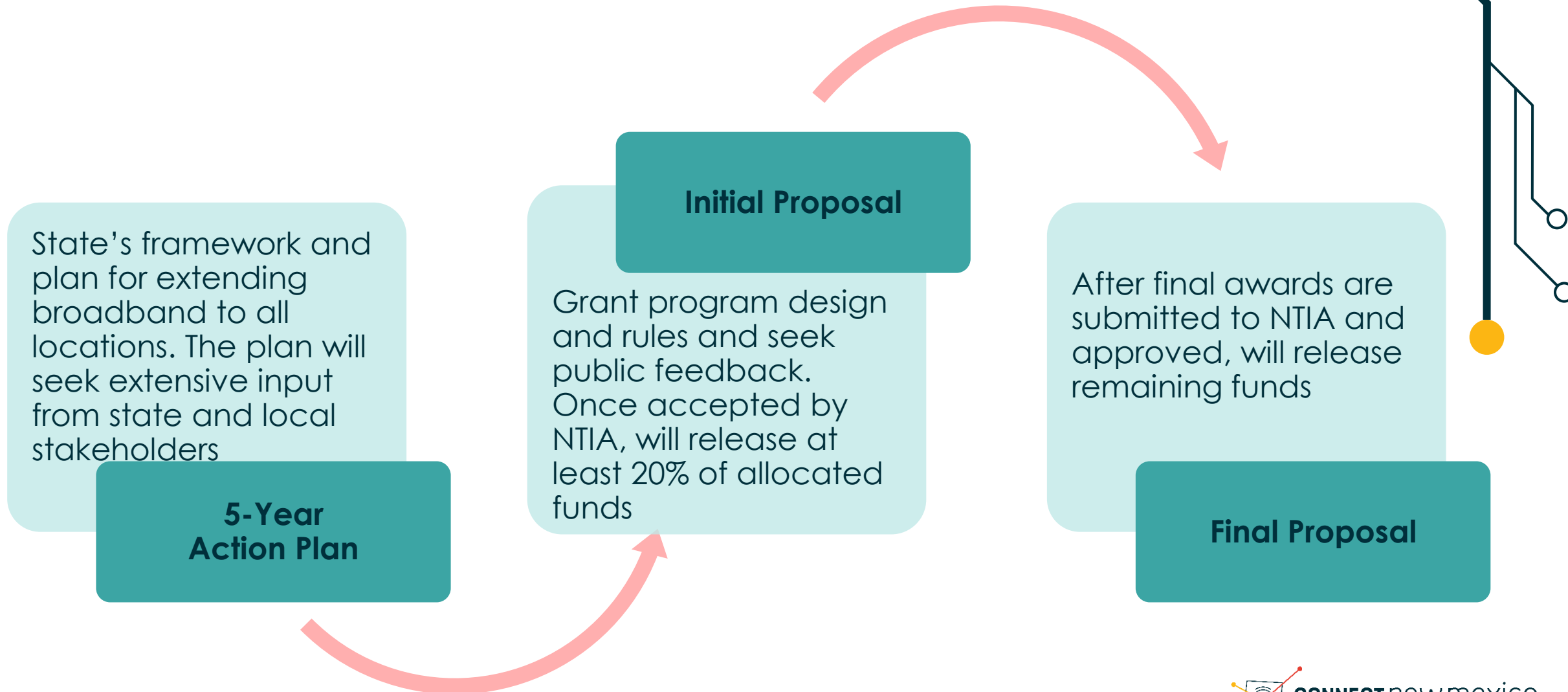
4. Low income and affordable housing

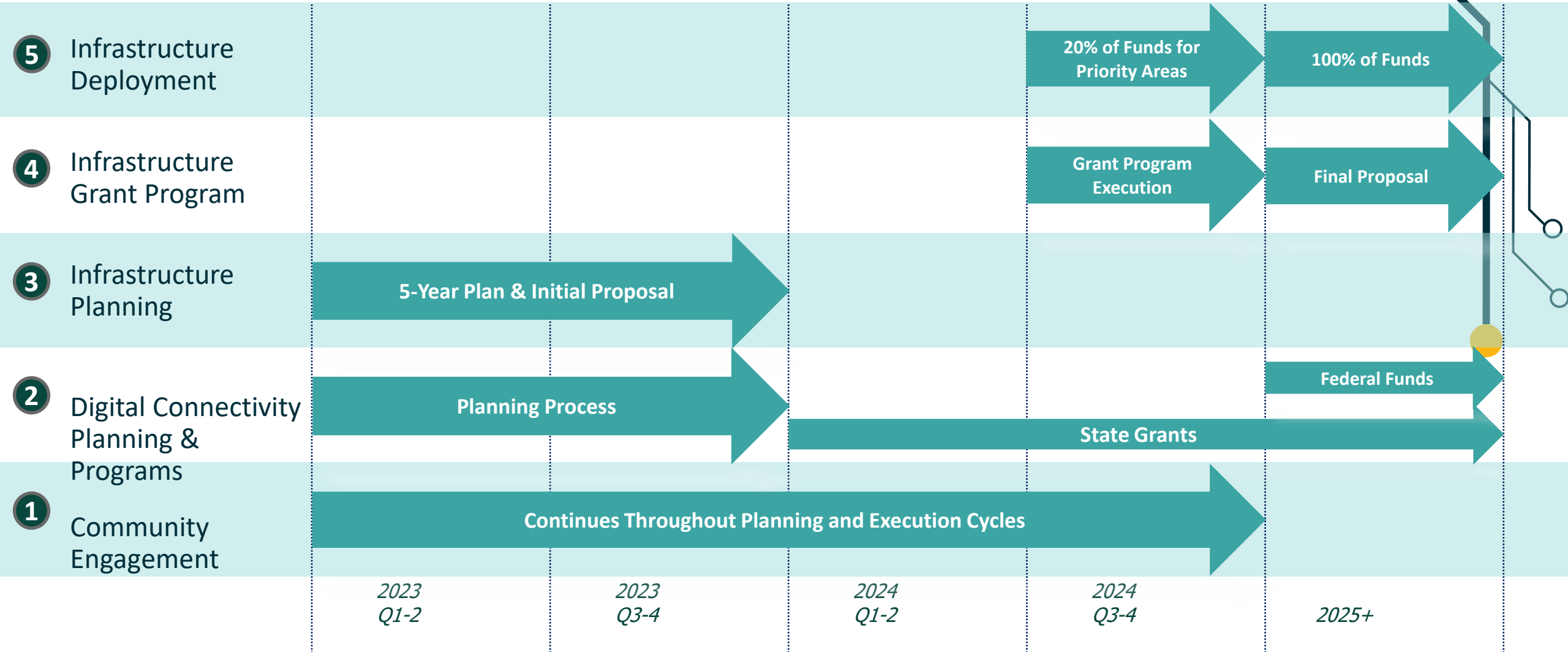| Planning	Provisional grant program	New infrastructure
2023	2024	2025

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Required Planning Will Result in Release of Funds

5-Year Action Plan

State's framework and plan for extending broadband to all locations. The plan will seek extensive input from state and local stakeholders

Initial Proposal

Grant program design and rules and seek public feedback. Once accepted by NTIA, will release at least 20% of allocated funds

Final Proposal

After final awards are submitted to NTIA and approved, will release remaining funds

Completing the New Mexico Broadband Highway

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Broadband Programs Timeline

5 Infrastructure Deployment

20% of Funds for Priority Areas

100% of Funds

4 Infrastructure Grant Program

Grant Program Execution

Final Proposal

3 Infrastructure Planning

5-Year Plan & Initial Proposal

2 Digital Connectivity Planning & Programs

Planning Process

Federal Funds

State Grants

1 Community Engagement

Continues Throughout Planning and Execution Cycles

2023 Q1-2

2023 Q3-4

2024 Q1-2

2024 Q3-4

2025+

Completing the New Mexico Broadband Highway

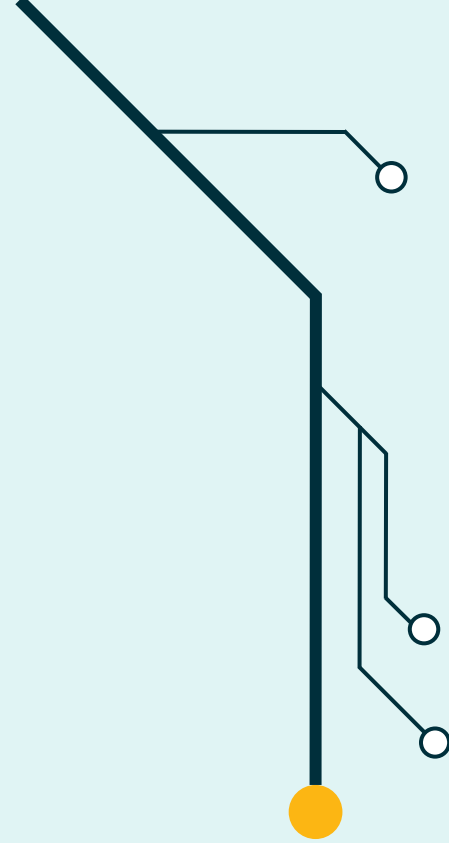CONNECT new mexico
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Broadband Service Deployment Under BEAD

Broadband service project areas prioritize unserved address locations

- State issues subgrants to deploy broadband infrastructure and deliver service

- Projects comply with fair labor standards

- State workforce development plan ensures readiness and new jobs to underrepresented groups

- Low-cost service options available to Eligible Subscribers – any household qualifying for the Affordable Connectivity Program (ACP)

- Low-cost service parameters based on provider participation in ACP or other subsidies, cost to subscribers after subsidies, and plan speed
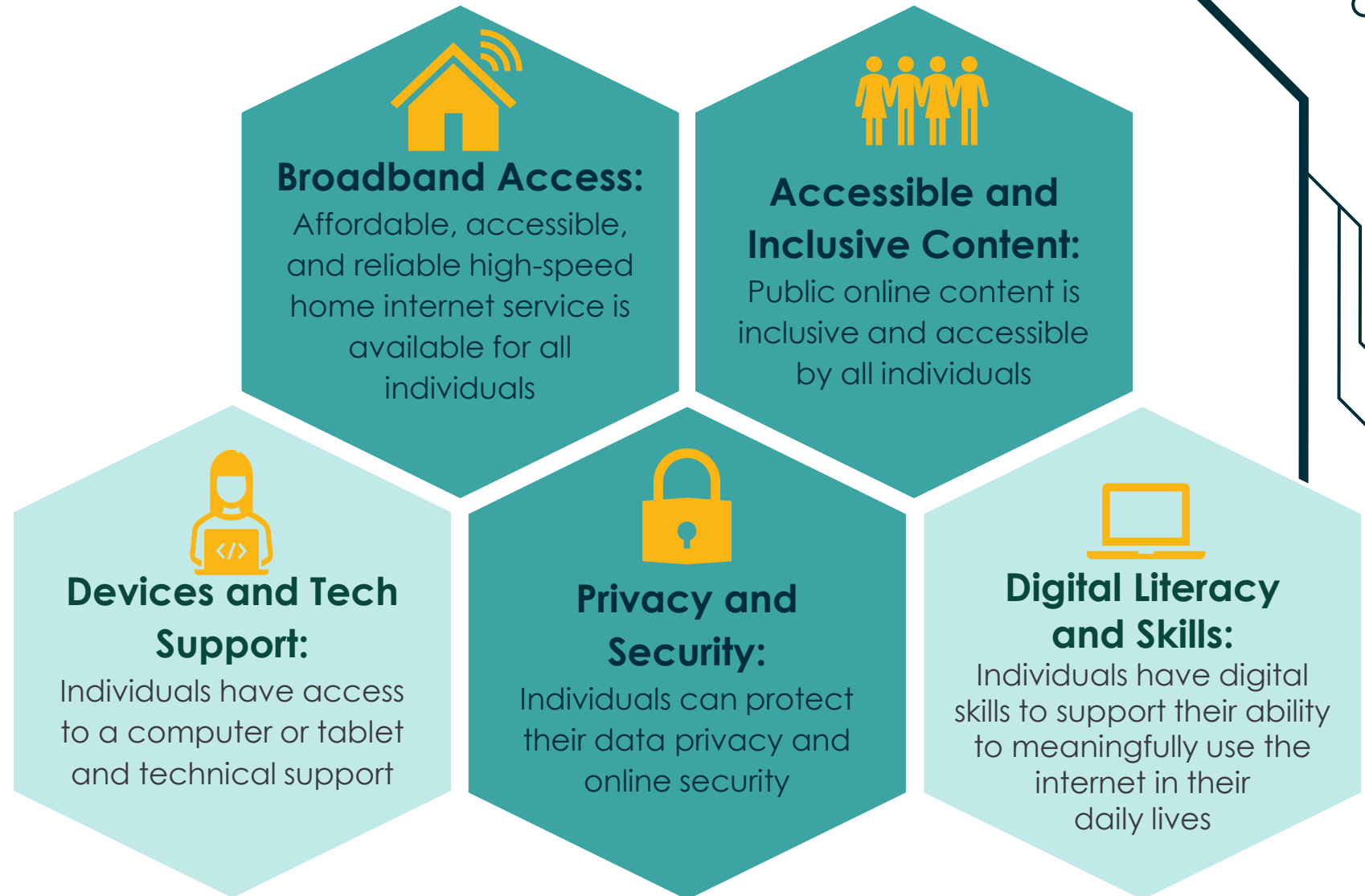
Subgrant Program

Low-cost Service Options

Fair Labor Standards

Workforce Readiness

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Digital Equity

What is "Digital Opportunity and Equity"?

Generally, experts have identified five elements of digital equity:

Broadband Access:
Affordable, accessible, and reliable high-speed home internet service is available for all individuals

Accessible and Inclusive Content:
Public online content is inclusive and accessible by all individuals

Devices and Tech Support:
Individuals have access to a computer or tablet and technical support

Privacy and Security:
Individuals can protect their data privacy and online security

Digital Literacy and Skills:
Individuals have digital skills to support their ability to meaningfully use the internet in their daily lives

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Digital Equity Ecosystem

A Digital Equity Ecosystem coordinates entities' work together to address all aspects of the digital divide, including affordable broadband, devices, and skills.

Indicators of a strong Digital Equity Ecosystem:

- Existence of programs and policies **addressing all aspects of the digital divide:**

  - Affordable and subsidized broadband service options that meet the community's needs

  - Affordable and subsidized device ownership programs that meet the community's needs

  - Multilingual digital literacy and digital skill trainings that meet the community's needs

  - Hardware and software technical support

  - Digital navigation services to guide residents to the above services

- **Collaboration:** Entities providing local digital inclusion services, policymakers, advocates, social service providers and community leaders co-create solutions in partnership with the community.

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Digital Equity

Overcoming knowledge barriers, including a lack of digital literacy or educational limitations, which prevent people from using the internet.

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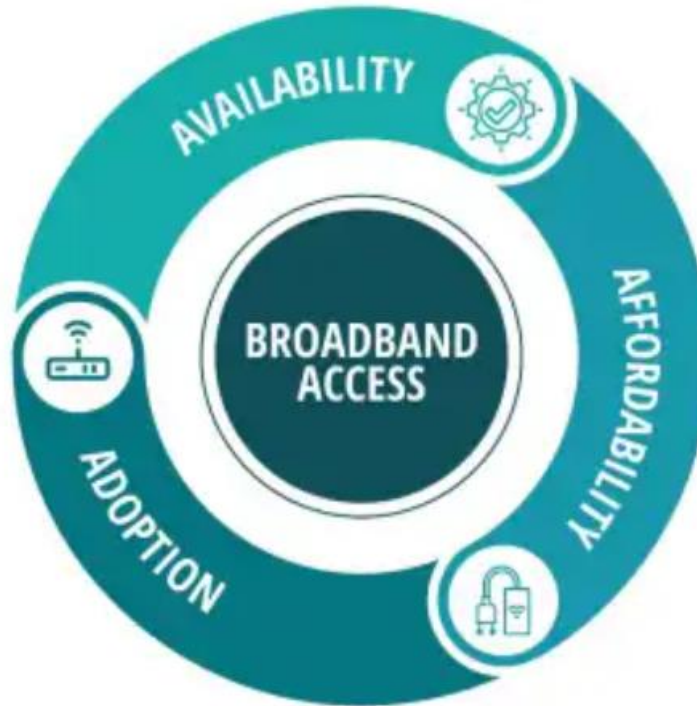
Affordable Connectivity Program (ACP)

FCC subsidy program helps households better afford internet services and devices

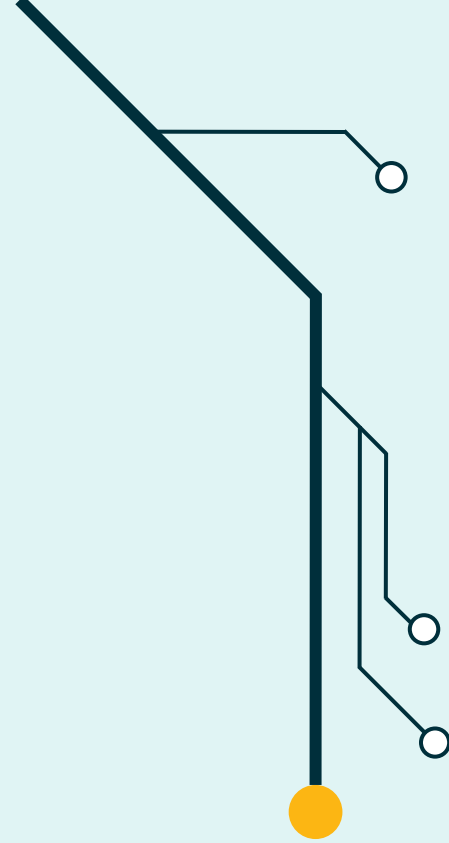**The Affordable Connectivity Program is an FCC program that helps connect families and households struggling to afford internet service**

Benefits for eligible households:

- Up to $30/month internet service discount
- Up to $75/month internet service discount of qualifying Tribal lands
- One-time discount up to $100 for a device
- Some low-cost service plans can be entirely subsidized

Household income and federal assistance programs determine eligibility*

Apply for ACP: affordableconnectivity.gov

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What Counties, Local Government, and Elected Officials Can Do

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Participate in the Resident Survey

New Mexico is conducting a statewide resident phone survey to assess digital connectivity participation

Survey data, along with stakeholder interviews, will support the development of measurable objectives in the following areas:

- Broadband access and adoption

- Devices and technical support

- Digital skills and literacy

- Data privacy and cybersecurity

If contacted, please participate!

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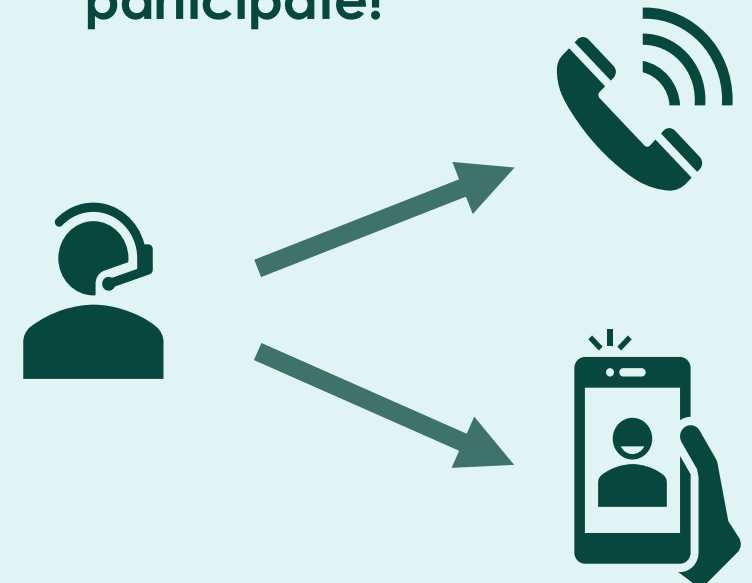
Stakeholder Surveys

Agency Asset Inventory

Infrastructure-related assets that may help facilitate or reduce the cost of broadband deployment in the state

Community Anchor Connectivity

Barriers and obstacles to clients, facility access, criticality of internet to mission and program capacity

ISP Workforce Preparedness

Sources for hiring, workforce programs, ACP, internet skills and adoption, collaboration in community, deployment approaches, disaster recovery plans

Workforce Programs Inventory

Workforce programs profile, barriers to developing diverse & skilled workforce, ISP workforce-related questions

Digital Equity Program Inventory

Program details, planned program types & areas of focus, broadband impacts on programmatic outcomes

Barriers & Obstacles for Covered Populations

Internet, computer & content access, digital skills, data security, barriers & obstacles, broadband impacts on programmatic outcomes

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How can my local community prepare?

Community support is key to grant funding success for ISPs	The 5 elements of digital participation can frame planning	Determine community priorities	Engage with ISPs
Like the OBAE pilot grants, the BEAD grant opportunity will incorporate substantial points for community engagement	They are a useful way to assess what matters most to your community and engage partners such as schools, libraries, chambers of commerce, and community colleges in activities to promote participation	This will help set your partners up to apply for digital equity grants and identify areas of collaboration with ISPs	Allow them to propose what they will do for your community in exchange for formal community support – primarily for infrastructure but also initiatives to promote digital participation

Affordable Broadband   **Inclusive Content**   **Devices**   **Digital Security**   **Digital Literacy**

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Government Agency Asset Inventory

- **Physical assets** (conduit, fiber, structures, real estate, poles, etc.) available for lease to ISP) for broadband deployment

- **Capital construction projects** that include opportunities for placement of communications facilities

- **Analysis of skilled labor availability and workforce readiness** as it may impact state broadband policies and deployment goals

- **Agency role in tracking and monitoring** broadband or other communications outages

- **Planning or development of regulations** related to reliable and resilient broadband or other communications services

- **Policies and strategic plans** related to broadband digital equity, infrastructure deployment, economic development, resilience, partnerships, business planning and related efforts

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Community Anchor Institutions

- **CAI connectivity:** After unserved and underserved locations, BEAD funds can support access to 1 Gbps internet for CAIs

- **State identifies eligible CAIs** and assesses needs

- **State applies the definition** and determines CAI types to serve, and its basis if selecting CAIs not in explicitly in definition

- **Challenge process:** Organizations not selected as eligible CAIs will have opportunity to challenge state determination

Definition:

"Entity such as school, library, health clinic, health center, hospital or other medical provider, public safety entity, institution of higher education, public housing organization, or community support organization that facilitates greater use of broadband service by vulnerable populations, including, but not limited to, low-income individuals, unemployed individuals, children, the incarcerated, and aged individuals." (BEAD NOFO p. 11)

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Community Anchor Institutions Survey

- **Profile:** Organization focus, groups you serve, and programs or services that facilitate use of broadband internet services by your clients

- **Barriers and obstacles:** Describe what prevents members of the communities you serve from accessing or using broadband internet

- **Facility access:** Level of internet access your organization's locations have and need. Can you get at least 1 Gigabit per second? If not, why not?

- **Criticality of service:** Criticality of broadband internet service to your mission. Has your organization been consulted in emergency or resilience planning?

- **Workforce development:** Is your organization involved in telecom or technology workforce programs?

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Workforce Development Survey

- **Profile of workforce development programs** your organization provides or uses, including:

  - Programs for job placement in the communications industry or transferable skill sets

  - Programs addressing any specific populations or communities (such as rural)

  - Current capacity for developing and offering trainings to meet workforce demands in the communications industry

  - Plans for developing and offering additional programs to meet future demands

  - Funding sources for training programs

- **Barriers and obstacles to developing a diverse, skilled workforce** and how these can be mitigated

- **ISP workforce related questions**

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Technology and Funding Opportunities

Alex Trujillo, Project Manager

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Broadband Technology Overview

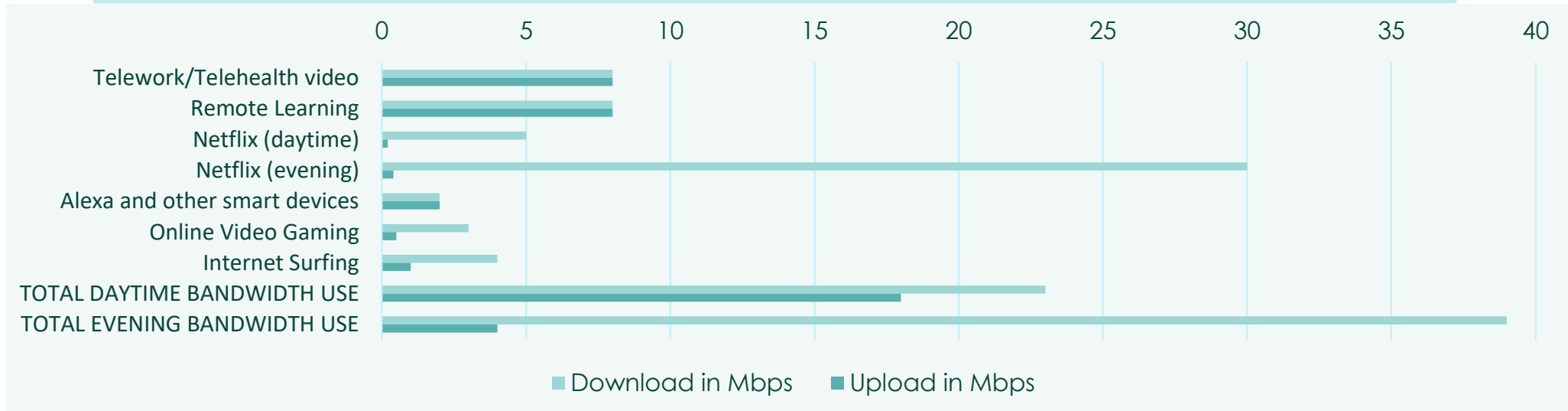# Federal and State Broadband Thresholds

25/3
Mbps

The FCC's definition is 25 megabits per second down and 3 megabits per second up (25/3 Mbps)
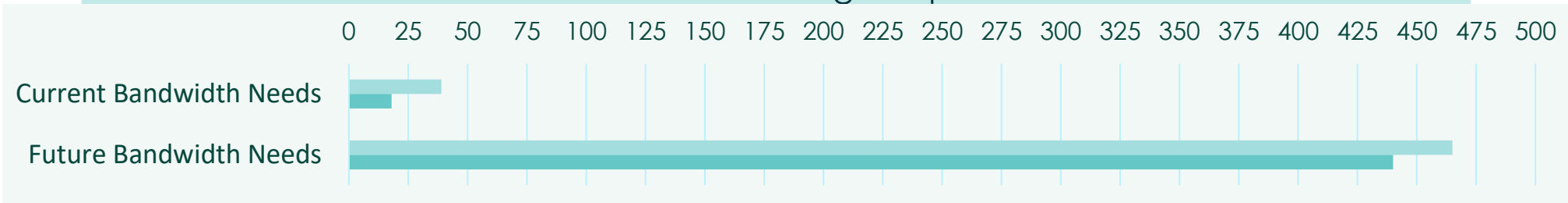
100/20
Mbps

Congress set a new 100/20 Mbps standard in the American Rescue Plan Act and Infrastructure Investment & Jobs Act

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How much bandwidth do we need?

Today we need more bandwidth than minimum 25/3 Mbps broadband speeds defined by the FCC

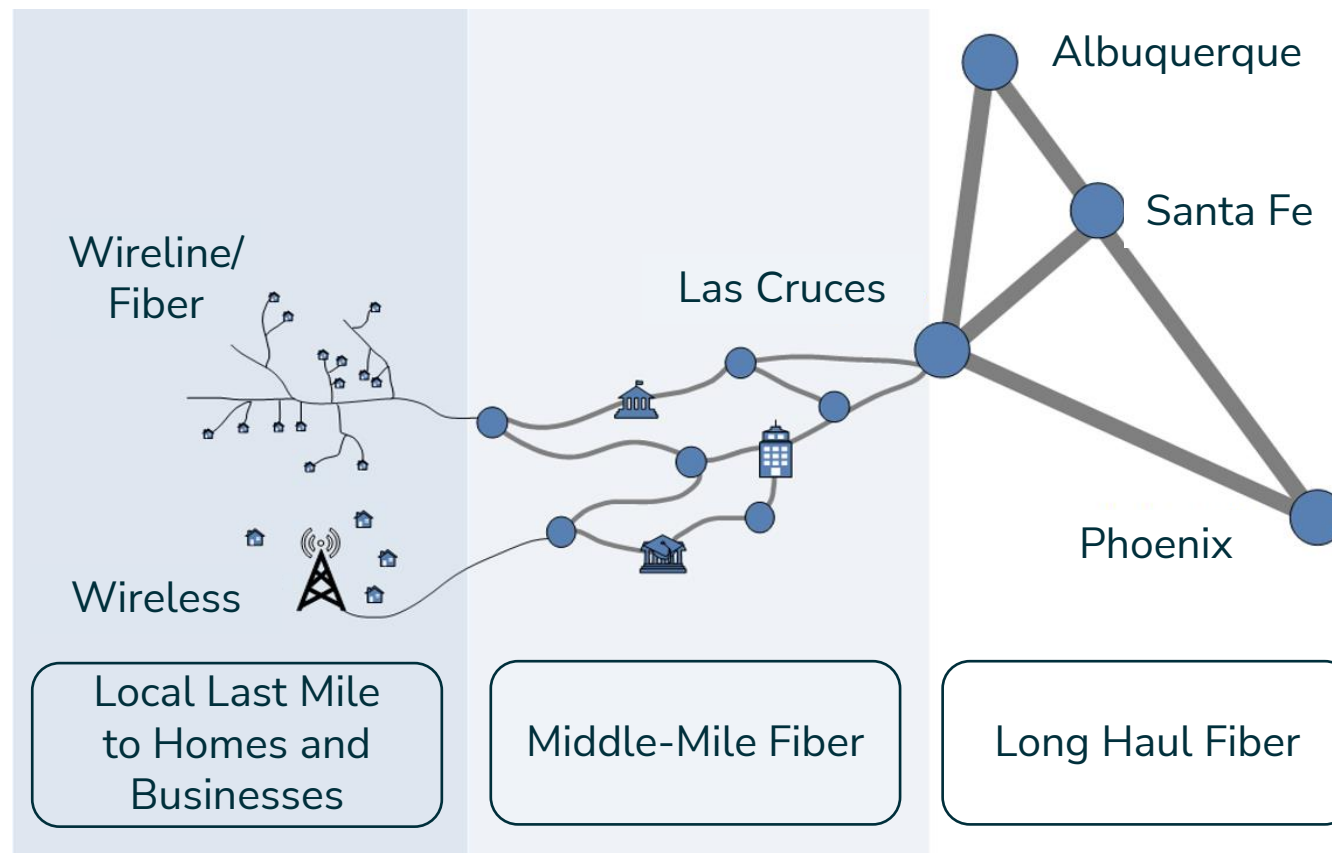| Category	0	5	10	15	20	25	30	35	40

- Telework/Telehealth video
- Remote Learning
- Netflix (daytime)
- Netflix (evening)
- Alexa and other smart devices
- Online Video Gaming
- Internet Surfing
- TOTAL DAYTIME BANDWIDTH USE
- TOTAL EVENING BANDWIDTH USE

■ Download in Mbps   ■ Upload in Mbps

With augmented reality, other anticipated applications, and increased usage, we will soon need much higher speeds

- Current Bandwidth Needs
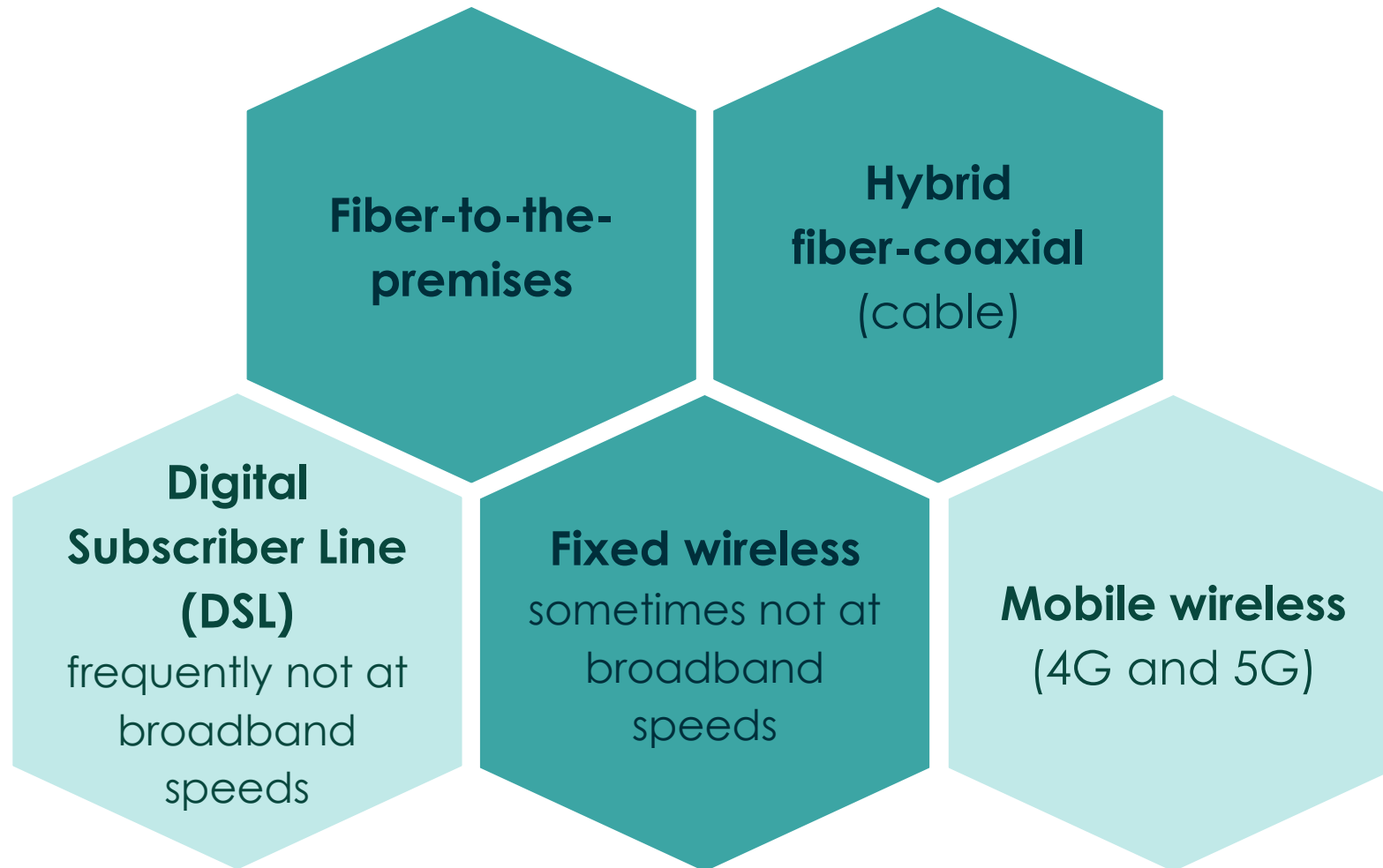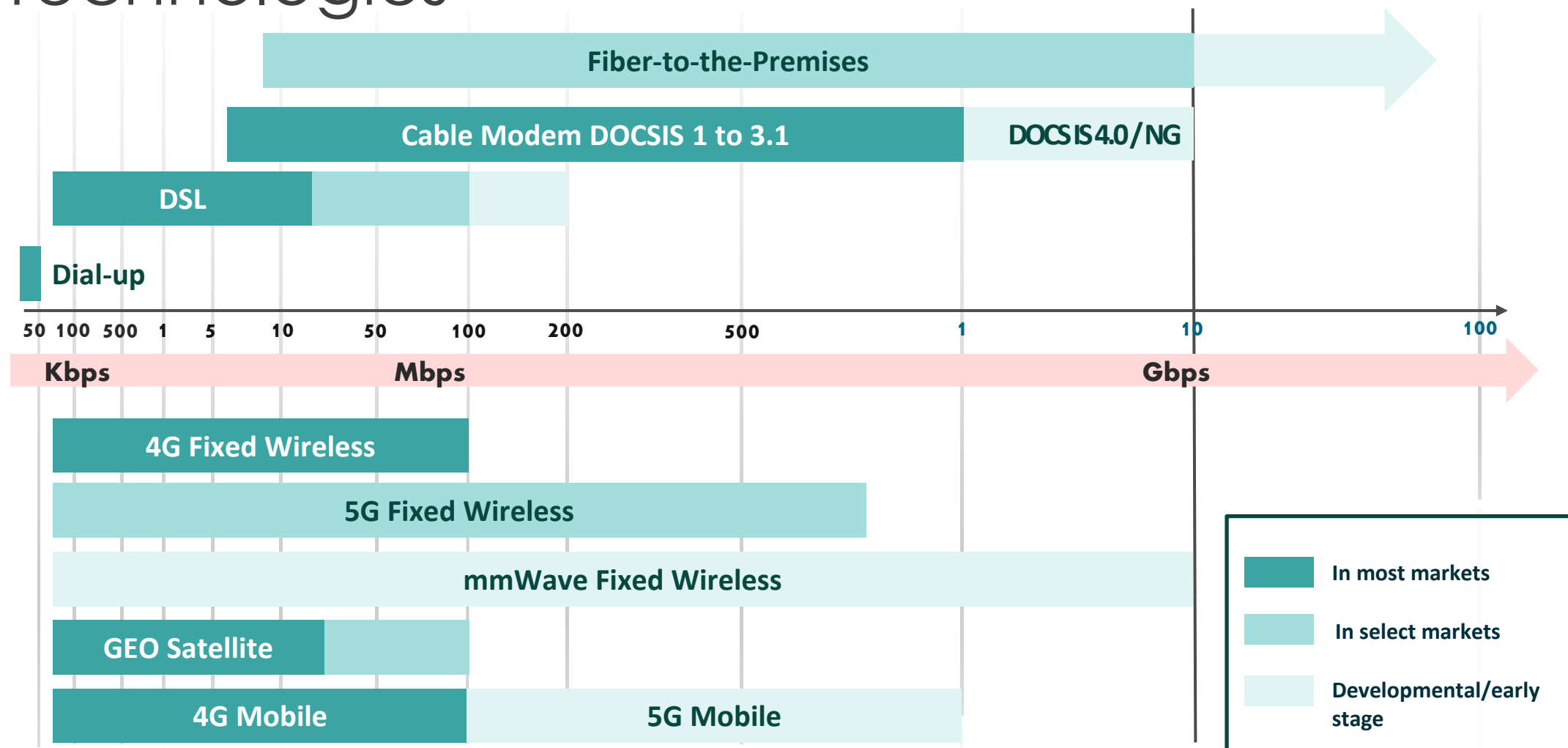- Future Bandwidth Needs

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THE ELEMENTS OF A BROADBAND NETWORK

- ## Long haul fiber
- ## Middle mile fiber
- ## Last mile (wireline or wireless)

Wireline/Fiber

Las Cruces

Albuquerque

Santa Fe

Wireless

Phoenix

Local Last Mile to Homes and Businesses

Middle-Mile Fiber

Long Haul Fiber

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Types of Broadband Infrastructure

Fiber-to-the-premises

Hybrid fiber-coaxial (cable)

Digital Subscriber Line (DSL) frequently not at broadband speeds

Fixed wireless sometimes not at broadband speeds

Mobile wireless (4G and 5G)

Typical Speeds: Wireline and Wireless Technologies

Fiber-to-the-Premises

Cable Modem DOCSIS 1 to 3.1 — **DOCSIS 4.0/NG**

DSL

Dial-up

50 100 500 1 5 10 50 100 200 500 1 10 100

Kbps   **Mbps**   **Gbps**

4G Fixed Wireless

5G Fixed Wireless

mmWave Fixed Wireless

GEO Satellite

4G Mobile **5G Mobile**

Legend:
- In most markets
- In select markets
- Developmental/early stage

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How did we get here?

Broadband has developed through the evolution of technology & industry investment

~1995: Dial-up

Telephone companies connect homes & businesses to the internet over copper telephone lines, at "narrowband," slow speeds

~1999: DSL

Telephone companies use new technology to offer faster internet over copper wires -- but still with speed & capacity limitations

~1999: Cable Modem

Cable companies use their last-mile video networks to connect customers to the internet, faster

~2005: Fiber-to-the-premises

Very high speeds to end users, but only in select areas where companies – or the public sector -- invest

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Partners

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Partnerships

Our ISP broadband partners

Plateau

Western

SacredWind

Resound

Kit Carson

NM Surf

Lumen

Windstream

JNet

MAT

Comcast

LEACO

PVT

Tularosa

Laguna

Vexxus Fiber

Oso Internet

TDS

T Mobile

AT&T

Verizon

Smith Bagley

RediNet

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Governmental

State Broadband Offices

State Agencies

Tribal Governments

County Governments

City Governments

Land Grants

Colonias

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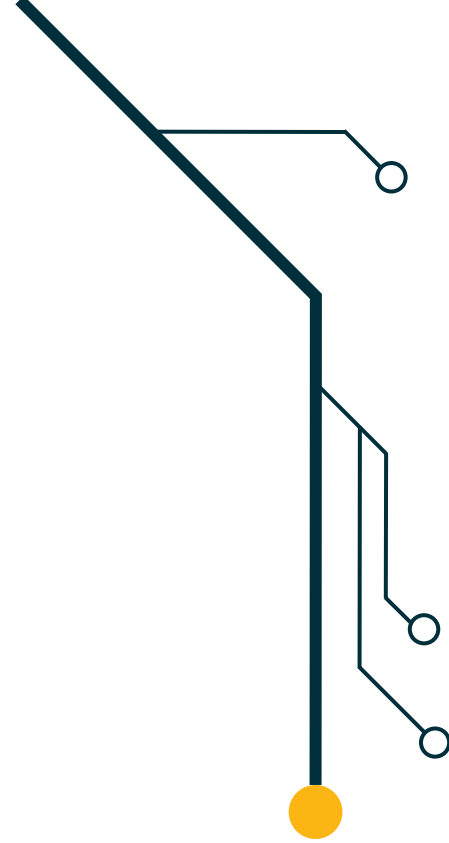
Non-Profits and Community Groups Partners

Borderplex

Community Learning Network

Mamacitas Cyberneticas

Teeniors

And more…

# Funding Opportunities

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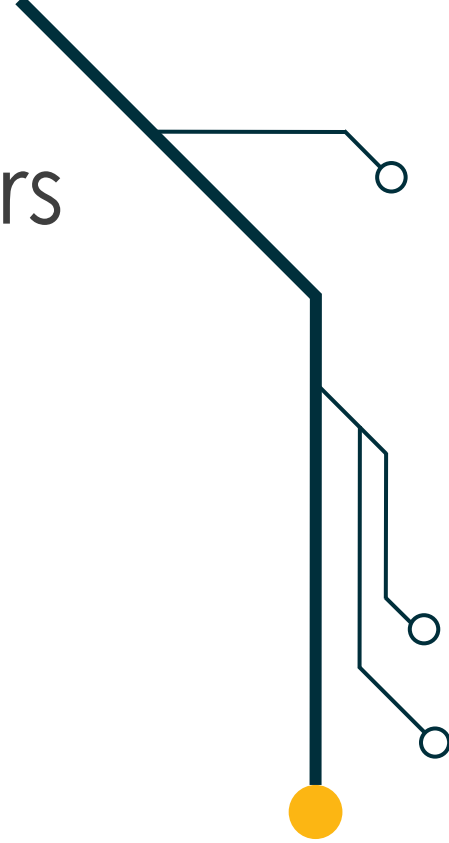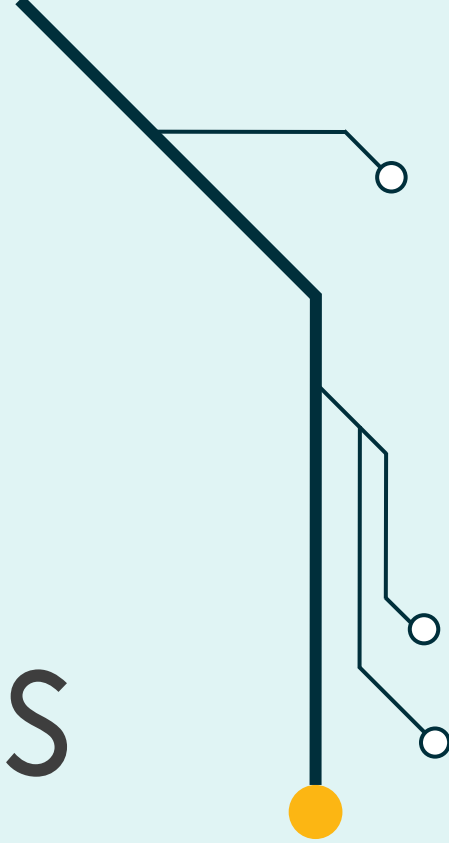
NTIA Tribal Broadband Connectivity	Amount
Pueblo of Acoma	14,346,244.00
Picuris Pueblo Indian Tribe	$3,742,991.00
Pueblo of Santa Clara	$9,175,946.00
Pueblo of San Ildefonso	$4,925,582.00
Pueblo of Zia	$4,695,868.82
Mescalero Apache Telecom, Inc.	$43,943,116.00
Pueblo of Isleta	$26,033,972.74
Santa Fe Indian School	$57,298,683.09
Santo Domingo (Kewa) Pueblo	$12,775,576.64
Jicarilla Apache Nation Power Authority	$6,935,801.00
Taos Pueblo Planning, Feasibility, and Sustainability Studies	$477,817.00
NTIA Connecting Minority Communities	Amount
Eastern New Mexico University Roswell (NM-03)	$1,945,329.00
New Mexico State University	$1,686,620.00
Southwestern Indian Polytechnic Institute (NM-01)	$1,645,133.56
New Mexico Highlands University,Las Vegas	$2,988,682.27
NDIA Digital Navigators Pilot Award	Amount
Pueblo of Jemez	$382,752.00

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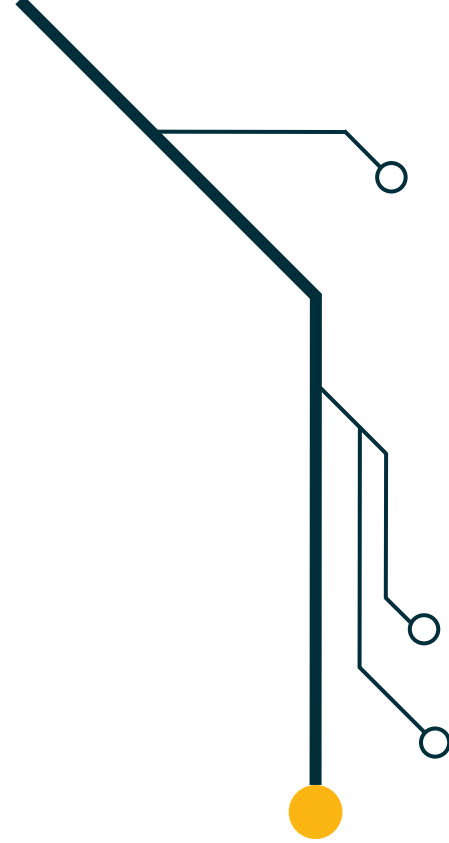
USDA Rural Development ReConnect Program	Amount
Penasco Valley Telephone (PVT) Cooperative (Chaves, Eddy, Lincoln, Otero)	$13,900,000
Western New Mexico Telephone Company Inc.(Catron County)	$23,800,000
E.N.M.R. Telephone Cooperative	$2,600,000
Kit Carson Electric Cooperative Inc.	$23,600,000.00
Leaco Rural Telephone Cooperative Inc.	$25,000,000.00
Western New Mexico Telephone Company Inc	$35,000,000.00
WNM Communications Corporation	$25,000,000.00
Continental Divide Electric Cooperative Inc.	$3,681,000.00
Eastern New Mexico Rural Telephone Cooperative	$14,749,747.00
Tularosa Basin Telephone Company Inc.	$5,825,102.00
Peñasco Valley Telecom	$28,927,570.00
Valley Telephone Cooperative	$44,924,000.00
Affordable Connectivity - National Competitive Outreach Program (NCOP)	Amount
City of Albuquerque	$400,000.00
New Mexico Black Leadership Council, Albuquerque	$400,000.00
El Paso Community Foundation (multi-state award includes Las Cruces)	$300,000.00

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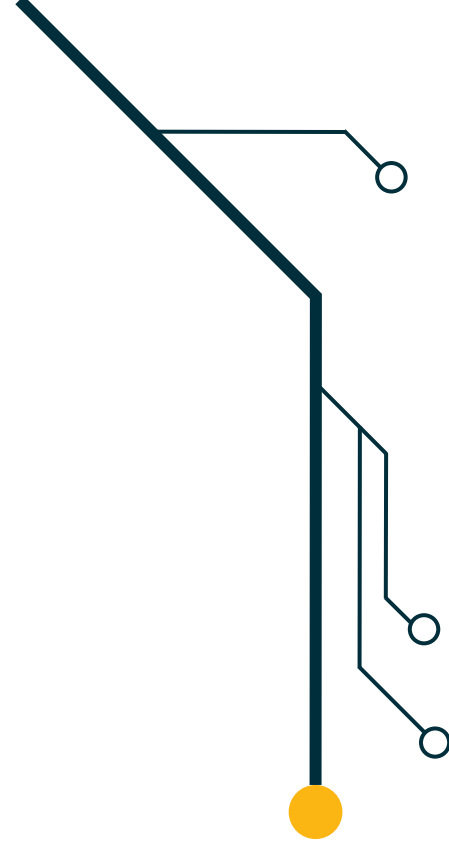
Affordable Connectivity - Tribal Competitive Outreach Program (TCOP)	Amount
Pueblo of Jemez	$379,234.00
Pueblo of Zuni	$325,000.00
Connect New Mexico Pilot Program (ARPA Capital Projects Fund)	**Amount**
SWC Telesolutions (DBA Ethos Broadband)	$2,100,000.00
Tularosa Communications	$9.930,000.00
Western New Mexico Telephone Company	$6.810,000.00
Valley TeleCom Group	$5.690,000.00
Comcast Corporation - Phase One	$8,260,000.00
Comcast Corporation - Phase Two	$8,840,000.00
Central New Mexico Electric Cooperative	$8,760,000.00
Ethos Broadband	$8,480,000.00
Socorro Electric Cooperative	$9,500,000.00

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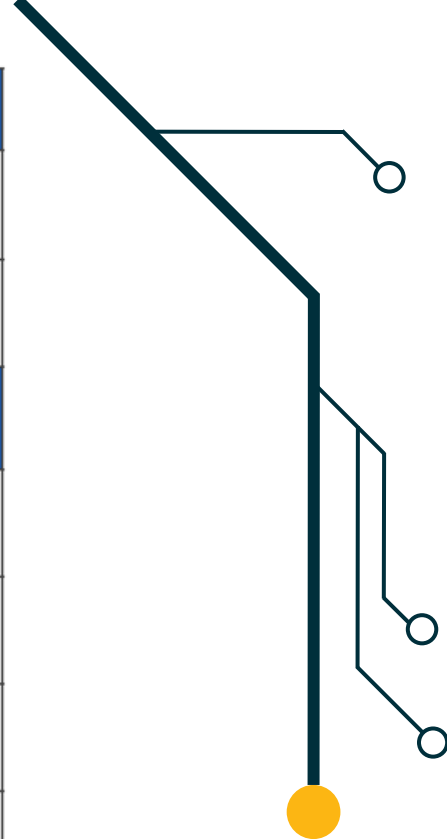
NM Broadband Equity Fund - NM Community Foundation & NM Broadband Collective	Amount
El Valle de Anton Chico Library	$35,540.00
Colores United	$75,000.00
Picuris Pueblo	$59,904.00
True Kids 1	$33,000.00
Pueblo of Cochiti	$40,500.00
Pueblo of Laguna Utility Authority	$71,596.00
Yee Ha'oolniidoo	$75,000.00
El Valle de Anton Chico Library	$35,540.00
Public Regulation Commission	**Amount**
Baca Valley Telephone Co., Inc.	$74,700,000.00
Commnet Wireless, LLC	$3,310,000.00
ENMR	$1,390,000.00
New Mexico Surf	$4,283,000.00
NTUA Wireless, LLC	$1,467,000.00
Peñasco Valley Telephone Cooperative, Inc. ("PVTC")	$1,607,000.00
Sierra Communications	$3,384,000.00
Smith Bagley, Inc. (SBI)	$8,126,000.00
Windstream Communications Southwest	$1,544,000.00

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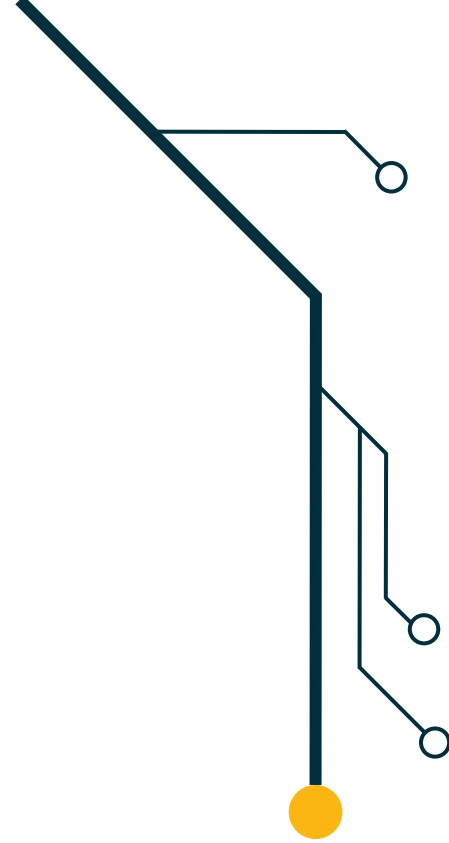
Rural Digital Opportunity Fund (RDOF)	Amount
Commnet Four Corners, LLC	$424,184.00
Continental Divide Electric Cooperative	$37,825,404.80
Kit Carson Electric Cooperative, Inc.	$18,102,076.90
PVT NetWorks, Inc.	$12,039.00
Qwest Corporation	$2,038,002.00
Resound Networks, LLC	$55,183,614.20
Skylark Broadband LLC	$246,737.80
SW DinehNet, LLC	$2,598,030.00
Time Warner Cable Information Services (New Mexico	$11,217.90
Valor Telecommunications of Texas, LLC dba Windstr	$15,516,006.80
Yucca Telecommunications Systems, Inc.	$26,221.00

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Be Ready for Grants

What you need:

- Grant writer
- A well-designed plan
- Financial Model
- Engaged community and ISP partners
- Be ready for funding opportunities

https://www.grants.gov
https://connect.nm.gov
Mailing lists:
Congressional
Foundation
State Government

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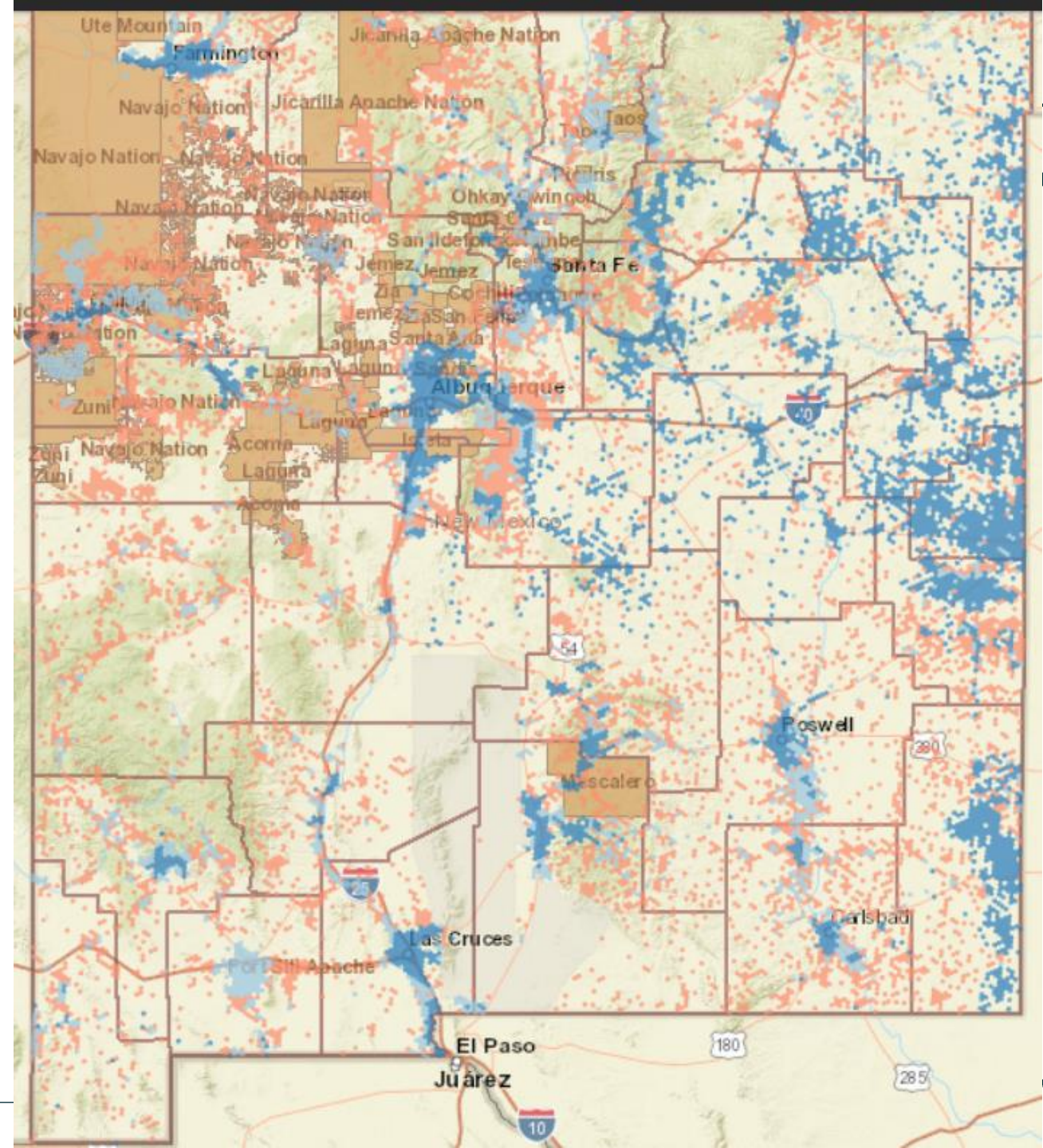
Mapping

Served

- 100/20+

Underserved

- 25/3-100/20

Unserved $$$

- 25/3 and below
- 802.11
- Satellites

Connect with us

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