



ENABLING CONDITIONS & BIL OVERVIEW

IN PREPARATION FOR BIL BROADBAND PROGRAMS



SEPT 2022

CONTEXT FOR TODAY'S DISCUSSION

This webinar introduces several important policies and practices that states, counties, and localities can pursue to accelerate new broadband deployment in conjunction with incoming funding from IJA programs. It is intended as a starting point for further exploration.

Following the Notices of Funding Opportunity (NOFO) for BIL broadband programs, NTIA will provide technical assistance to states to support grant application submissions.

BEAD program will provide ~\$42.45B for infrastructure planning and implementation

Funding pool
\$42.45B

A program to get all Americans online by funding partnerships between states or territories, communities, and stakeholders to build infrastructure where we need it to and increase adoption of high-speed Internet.

PROGRAM HIGHLIGHTS

Entities eligible to apply for this program include:

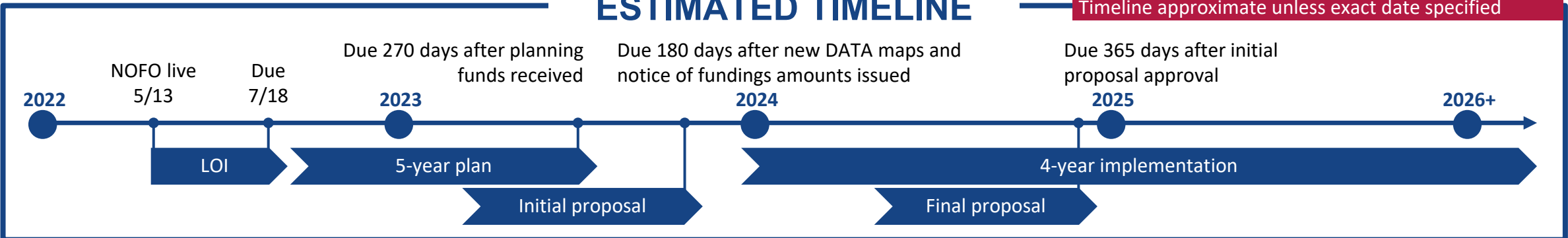
- All 50 States
- The District of Columbia and Puerto Rico
- Other Territories: U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands

Example eligible uses of funds include:

- ☆ Planning for deployment of Internet
- ☆ Deploying or upgrading Internet
- ☆ Installing Internet in multi-tenant buildings
- ☆ Implementing adoption and digital equity programs
- ☆ Workforce and job training

ESTIMATED TIMELINE

Timeline approximate unless exact date specified



Digital Equity Act created three programs to promote digital equity and inclusion

Funding pool
\$2.75B

Three programs that provide funding to promote digital inclusion and advance equity for all. They aim to ensure that all communities can access and use affordable, reliable high-speed Internet to meet their needs and improve their lives.

PROGRAMS HIGHLIGHTS

The Digital Equity Act created three programs:

State Planning

- \$60M formula funding program to develop digital equity plans

State Capacity

- \$1.44B formula funding program to implement plans & promote digital inclusion

Competitive

- \$1.25B to implement digital equity and inclusion activities

Example eligible uses of funds include:

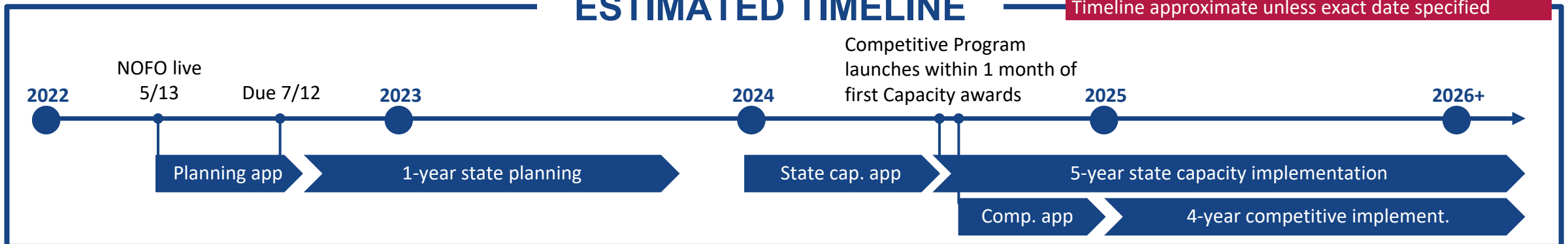
- ☆ Developing digital equity plans; states must develop a plan to be eligible for state capacity grants
- ☆ Implementing digital equity plans and related activities

- ☆ Making awards to other entities to help make digital equity plans
- ☆ Providing digital literacy and digital skills education

- ☆ Improving accessibility and inclusivity of public resources
- ☆ Facilitating the adoption of high-speed Internet

ESTIMATED TIMELINE

Timeline approximate unless exact date specified



Technical amendments and new funding will strengthen current Tribal Broadband Connectivity Program

Funding pool
\$2.00B

A program to help tribal communities expand high-speed Internet access and adoption on tribal lands.

PROGRAM HIGHLIGHTS

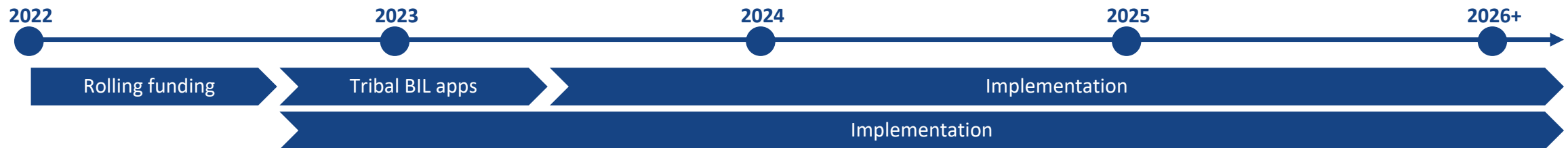
New funding will be used for additional new grants and to fully fund grants from first round of awards

Amendments to original program:

- Relaxes time requirements of original program
- Allows infrastructure grantees to spend up to 2.5% of the total project cost for related planning, feasibility and sustainability studies
- Preserves unused allocated funds for other Tribal broadband projects instead of reverting to the Treasury

ESTIMATED TIMELINE

Timeline approximate unless exact date specified



Middle Mile Grant Program will invest in the construction, improvement or acquisition of middle mile infrastructure

Funding pool
\$1.00B

A program to expand middle mile infrastructure, to reduce the cost of connecting unserved and underserved areas.

PROGRAM HIGHLIGHTS

Middle mile infrastructure refers to the mid-section of Internet infrastructure that carries large amounts of data at high speeds over long distances and connects the "backbone" of Internet infrastructure to the "last mile", which connects to end users

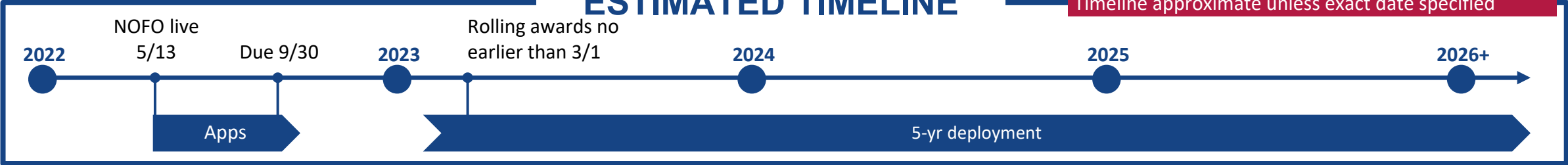
Entities eligible to apply include a wide variety of entities, incl. but not limited to government entities, utilities, companies, and non-profits that provide Internet services

Example uses of funds:

- ☆ Construction, improvement or acquisition of facilities and equipment
- ☆ Engineering design, permitting and work related to projects
- ☆ Personnel costs, including salaries and benefits
- ☆ Other costs necessary to program's activities

ESTIMATED TIMELINE

Timeline approximate unless exact date specified



Source: California Department of Technology, ["What is the middle mile"?](#)

TODAY'S FOCUS IS ON POLICIES THAT CAN SUPPORT FASTER BROADBAND DEPLOYMENT

Potential **right-of-way (ROW)** policies



Streamlined ROW

Potential **buried deployment** policies



Dig once

Potential **aerial deployment** policies



Pole attachment policies



One-touch make-ready (OTMR)



Context is key: While the policies in this guide have had success in many locations, they are not universally applicable. States and localities should take their specific context into account when weighing benefits and costs.

JURISDICTIONS CAN CONSIDER POLICIES TO STREAMLINE ROW ACCESS TO REDUCE DEPLOYMENT TIME AND CAPEX

OVERVIEW

Jurisdictions and private owners grant providers easements to access the ROW

They also provide permits to providers or reach lease agreements with them to build broadband infrastructure along the ROW

Jurisdictions looking to **streamline ROW access** can identify and alleviate bottlenecks in these processes while still ensuring safe construction practices

BENEFITS

- ✓ **Can significantly reduce deployment time and capital expenditure (CapEx)**
 - ✓ Can simplify complicated permitting and increase local capacity
 - ✓ Can promote newer practices, such as micro-trenching and small cell wireless facilities, that, when installed correctly, can be faster and more affordable for providers

WHEN DESIGNING ROW ACCESS POLICIES, CONSIDER PERMITTING, PARAMETERS, AND EXCESS CAPACITY



Streamlining permitting & inspection: Consider simplifying the number and complexity of permit applications (the “one-stop shop”), offering expedited permitting for minimally invasive construction practices, and putting in place e-permitting



Defining parameters: Consider the appropriate sizing and location of conduit, small cells, and other broadband infrastructure to ensure safety and durability



Many cities, including Los Angeles and New York, define the parameters for micro-trenching, a lower-impact method that, when done correctly, can reduce construction cost and minimize disruptions.¹



Requiring excess capacity: Consider whether to require excess capacity within conduit to ensure that they are “future-proof” (i.e., have capacity to meet future needs)

1. Los Angeles Municipal Code, “Sections 62.00, 62.03” 2020 ([link](#)); The Rules of the City of New York, “Title 67, Chapter 1” 2015 ([link](#))

DIG ONCE REFERS TO A RANGE OF POLICIES TO ENCOURAGE INSTALLATION OF CONDUITS FOR FUTURE USE

OVERVIEW

Dig once policies encourage or require project owners to install multiple conduits or micro-ducts (or both) for future use

Can apply to any construction (e.g., telecoms, transportation, utilities) along the public ROW, especially highways and roads

BENEFITS

- ✓ **Can reduce future costs by minimizing the need for future construction**
- ✓ **Can minimize disruption to services**
- ✓ **Can take advantage of IIJA spending**

FOR DIG ONCE POLICIES, CONSIDER THE IMPLEMENTATION MECHANISM AND THE COST AND OWNERSHIP OF CONDUIT



Implementation mechanism: Influences the policy’s stringency and several key structural questions

Legislation or ordinance


Typically, a mandate that applies to all construction along the public ROW

More likely to ensure that conduit gets installed

Executive Order

Typically, the jurisdiction promotes public notice for upcoming work and providers choose to add conduit

Less likely to ensure that conduit gets installed

 In North Carolina, a 2019 executive order mandated dig once. For state transportation projects, a provider may decide to install new conduit. In addition, they must provide notice of a joint-trench opportunity, allowing other providers to negotiate a joint access agreement to also install conduit.²




Cost and ownership of conduit: Which entity owns and can benefit from the conduit, as well as how to pay for it

Jurisdiction

Owning the conduit includes more involvement but also allows the jurisdiction to use it or lease it to providers

Private entity

The jurisdiction’s role is more hands-off, but does not provide the benefits of conduit ownership

 In Illinois, legislation requires state agencies to install conduit for state-funded projects along state-owned roads. The state pays for the conduit, owns it, and leases it to providers with “market-based, non-discriminatory pricing.”³

2. North Carolina Department of Transportation, “Dig Once Policy” 2021 ([link](#)); 3. Illinois Compiled Statutes, “605 ILCS 5/9-131” 2009 ([link](#))

POLE ATTACHMENT POLICIES AND ONE-TOUCH MAKE-READY CAN HELP STREAMLINE AERIAL DEPLOYMENT

Aerial deployment
Attach cables to utility poles along the ROW

Utility poles with multiple existing services (e.g., telephone, electricity, cable) require policies to regulate pole attachments



Potential **aerial deployment** policies



Pole attachment policies



One-touch make-ready (OTMR)

POLE ATTACHMENT POLICIES REGULATE THE PROCESS FOR PROVIDERS TO ATTACH CABLES TO UTILITY POLES

OVERVIEW

Pole attachment policies **address rates, access requests, timelines, procedures to mediate disputes, and other terms and conditions**

For incumbent providers, they influence operational expenses

For new attachers, they are a potential barrier to entry if they make a proposed project economically nonviable, particularly in unserved rural areas

BENEFITS

- ✓ **Can reduce costs for new deployment**
 - ✓ Jurisdictions can determine streamlined attachment processes and reasonable rates
 - ✓ Work with all interested parties
- ✓ **Can provide certainty**
 - ✓ Consistent pole attachment policies provide clarity to the market
 - ✓ All relevant entities are able to incorporate the process into their long-term planning

THE FCC REGULATES POLE ATTACHMENTS IN 30 STATES



Section 224 gives the FCC authority to regulate pole attachments, though states can exempt themselves. 20 states and the District of Columbia have done so.⁴

FCC rules do not apply to cooperatives or municipalities.⁴

In 2019, the FCC adopted an OTMR policy that “permit[s] new attachers to elect an OTMR process for simple make-ready for wireline attachments in the ‘communications space’ on a pole.”⁵

Pole attachment policies and OTMR covered in this presentation **apply to states that set their own pole attachment regulations**, as well as any regulations outside of FCC authority.

4. U.S. Code, “Title 47 – Telecommunications” 2020 ([link](#)); 5. FCC, DA 19-445, 2019 ([link](#)); 5. FCC Public Notice, “DA 19-445” 2019 ([link](#))

FOR POLE ATTACHMENT POLICIES, CONSIDER REGULATORY AUTHORITY AND POLICY APPLICABILITY



Regulatory authority: Jurisdictions need to identify which entity has regulatory authority

- **FCC or quasi-public agencies**
- **State agency**
- **Local authority**
- **Pole owners**



- The Tennessee Valley Authority (TVA) works with the FCC to set rates and other policies for broadband providers to attach to poles owned by local power companies within the TVA system.⁶
- Illinois statutes grant pole attachment authority to local governments and provide specific parameters in which they can operate, such as requiring permitting decisions within 45 days.⁷
- In Idaho, pole owners are in charge of reaching pole attachment agreements with attachers. The state PUC will set rates, terms and conditions, and make-ready costs when the parties cannot reach an agreement.⁸



Applicability: Wherever possible, jurisdictions should consider aligning policies for all pole owners, including municipal and cooperative utilities, and work with these groups to address their specific circumstances and needs

6. The Tennessee Valley Authority, Determination on Regulation of Pole Attachments, “Appendix J” 2016 ([link](#)); see also TVA, “Appendix L” 2017 ([link](#)); 7. Illinois Compiled Statutes, “220 ILCS 5/21-1001” 2009 ([link](#)); 8. Idaho Statutes, “Title 61-501” ([link](#))

ONE-TOUCH MAKE-READY DESIGNATES CONTRACTORS TO COMPLETE ALL MAKE-READY TASKS AT THE SAME TIME

OVERVIEW

Make-ready is the logistical, technical, and regulatory tasks needed to prepare utility poles for new cables

It can be an arduous, time-consuming process that slows deployment, particularly in underserved areas

An OTMR policy designates one or more contractors to complete all make-ready tasks at the same time rather than have the pole owner and each incumbent provider conduct their own make-ready sequentially

BENEFITS

- ✓ **Can reduce make-ready costs for new attachers**
 - ✓ The contractor conducts planning and adjusts poles simultaneously
- ✓ **Can avoid potential complications**
 - ✓ Reduces the number of parties involved
 - ✓ Empowers the contractor to make choices in the community's best interests
- ✓ **Can support new market entrants**
 - ✓ Without OTMR, logistical challenges and safety concerns can delay new attachers

WHEN DESIGNING OTMR POLICIES, CONSIDER THE DESIGNATED CONTRACTOR AND ADDITIONAL COSTS



OTMR contractors: Jurisdictions or pole owners must determine the appropriate designated entity or entities to conduct the OTMR work

New attacher

Under FCC rules, the new attacher can choose to request OTMR and are responsible for all make-ready work

Designated contractor(s)

The jurisdiction can work with pole owners and incumbent providers to develop a reasonable selection criteria for safety and competence








In 2018, the Hawaii PUC approved a plan for Hawaii Electric, a local electric utility, to take over ownership of roughly 120,000 jointly-owned utility poles from Hawaii Telecom, the state's incumbent local exchange carrier (ILEC). While not officially an OTMR policy, the plan functions similarly in practice, as it removes one entity from the make-ready process in order to make pole management, including new pole attachments, more efficient.⁹



Additional costs: New attachers typically pay make-ready and negotiate additional costs with the relevant parties, such as preexisting safety violations and pole replacement costs

Jurisdictions should be aware that additional cost issues will likely arise

GOVERNMENTS CAN MAP ASSETS TO ACCELERATE BROADBAND DEPLOYMENT

-  **Leverage IIJA funding** : More effectively leverage upcoming IIJA funding for broadband and non-broadband projects by **identifying opportunities to share construction costs or combine projects**
-  **Reduce deployment costs** : By identifying and mapping assets that providers can leverage, governments can help reduce the cost and length of construction and encourage more private broadband investment by **sharing with or leasing public assets to providers** (e.g., space on water towers for fixed wireless cells)
-  **Streamline permitting** : **Make it easier for governments to complete permitting tasks** and, thus, quicker and more affordable for providers, particularly in unserved and underserved areas
-  **Avoid unintentional damage** : **Sharing asset mapping data with providers** prior to construction can help reduce the risk of damage to existing assets (the “backhoe risk”), which disrupts vital services and creates costly delays
-  **Improve government services** : Governments can use asset map data to **strengthen and expand their own broadband networks**, which provide public services, and even grow the tax base, as some broadband assets may be taxable

PROVIDERS CAN LEVERAGE A RANGE OF POTENTIAL BROADBAND ASSETS

Broadband assets	How providers can leverage them
Existing broadband networks	<ul style="list-style-type: none"> • Access networks through infrastructure sharing arrangements, leases, or indefeasible rights of use (IRUs)
Available conduit/duct systems and dark fiber	<ul style="list-style-type: none"> • Access excess capacity of dark fiber through leases or IRUs • Run fiberoptic or coaxial cables through existing conduit
Public ROW, including roads and bridges	<ul style="list-style-type: none"> • Use existing ROW without the need for new easements • Use existing conduit or planned new conduit along roads • Provide wireless antenna support on public structures
Utility infrastructure	<ul style="list-style-type: none"> • Run fiberoptic or coaxial cables via/through: <ul style="list-style-type: none"> - Utility pole attachment rights - Existing sewer or storm drain infrastructure - Water or gas distribution ROW
Anchor organizations	<ul style="list-style-type: none"> • Serve as an area node • Mount wireless antennas, install fiberoptic cable, radio, and other network equipment, and connect to power
Tall infrastructure	<ul style="list-style-type: none"> • Mount wireless antennas, install radio and other network equipment, and connect to power

Governments can consider **the type and granularity of information to collect**, including:



- Location
- Ownership
- Age and condition
- Utilization of the asset
- Access constraints
- Legal constraints

ASSET MAPPING BENEFITS FROM THE PARTICIPATION OF SEVERAL KEY PUBLIC AND PRIVATE SECTOR STAKEHOLDERS



State government

States can map and share data with localities through data exchanges. Key agencies:

- **Department of Transportation (DoT)**
- Higher education institutions
- CIO's office

Data access and sharing can be difficult when multiple agencies manage multiple databases

County & local government

Asset mapping occurs most frequently at the county and local level. Key agencies:

- **Planning, GIS and public works**
- County assessors
- Public safety agencies

Counties and localities may also own physical assets (e.g., towers, power, buildings) that providers can leverage

Dedicated broadband offices

Broadband offices within all levels of government are crucial partners and potential data users

One key role is to **assist grantees** in accessing asset map data and information on deployed assets

Providers

Telecoms and cable providers, cooperatives, and municipalities map their assets. Key roles:

- **Partner** with governments
- **Use asset maps** to identify assets to leverage
- **Share/lease** assets with/to other providers

Some providers view their data and assets as proprietary and are less likely to share data

Third-party asset owners

Potential asset owners are in energy, agriculture, healthcare, education, and others. Key roles:

- **Reach agreements** with providers to share or lease assets where feasible
- **Partner with governments** to provide data

Potential assets: siloes, grain elevators, steeples, utility poles, microgrids, clocktowers, and land

There are many ways stakeholders may get involved in the programs

Illustrative, non-exhaustive

Telecom provider

- Apply to be a BEAD subgrantee or apply directly for Middle Mile
- *Note: Telecom providers may include government owned entities*



Community anchor institution

- Benefit from BEAD funding for faster Internet
- Apply for Digital Equity competitive grant
- Advocate for community interests across programs



Local government

- Collaborate with state to develop Digital Equity plan and during BEAD planning
- Apply for a Middle Mile or Digital Equity capacity and competitive grants

Community orgs

- Serve as a thought partner as states design their outreach strategies
- Advocate for community interests across programs



Individual

- Participate in digital skill and literacy courses funded by programs
- Contact local reps for more information

Sarah Smith

Federal Program Officer – Supporting CO, WY

[m] 202-836-2171 | ssmith@ntia.gov

