



# Guidebook on Broadband Public-Private Partnerships

May 2024



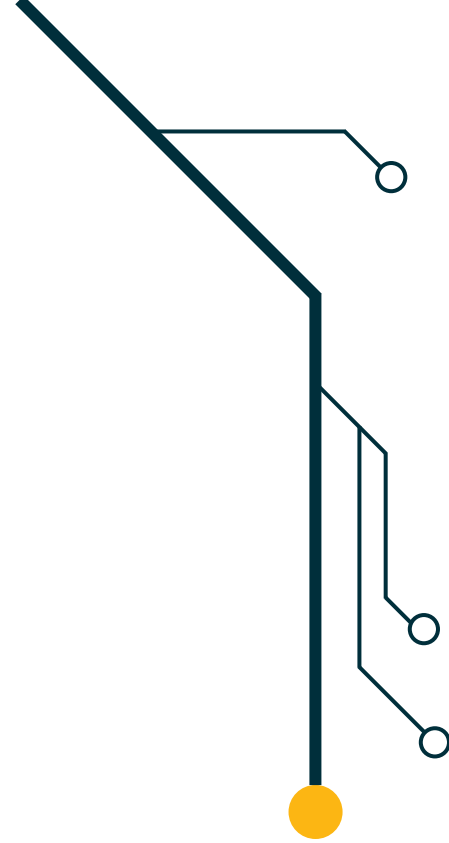
# Introduction

This guidebook is designed to introduce community broadband planners to the basic elements of broadband business models and public-private partnerships.

This guidebook is one in a series of resources developed by OBAE to prepare localities, Pueblos, Tribes, Nations, and their partners to apply for the state's Broadband Equity, Access, and Deployment (BEAD) grant funding.

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# Overview of Community Broadband Models



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# Overview of Community Broadband Models

- Understand the breadth of options for community involvement in broadband – by localities, Pueblos, Tribes, and Nations – so as to be able to place each in context
- Take a deeper dive on each option

# Overview of Community Broadband Business Models

## **Locality/Pueblo/ Tribe/Nation broadband:**

*Traditional model  
of full ownership &  
operations*

Requires the community to undertake all elements of building and operating a network, with all benefits and risks remaining with the community

This represents the traditional way that incumbent (and competitive) providers operate

Many local governments, given no alternatives, have also adopted the fully integrated, full-risk model for municipal broadband networks

## **Public-private collaboration:**

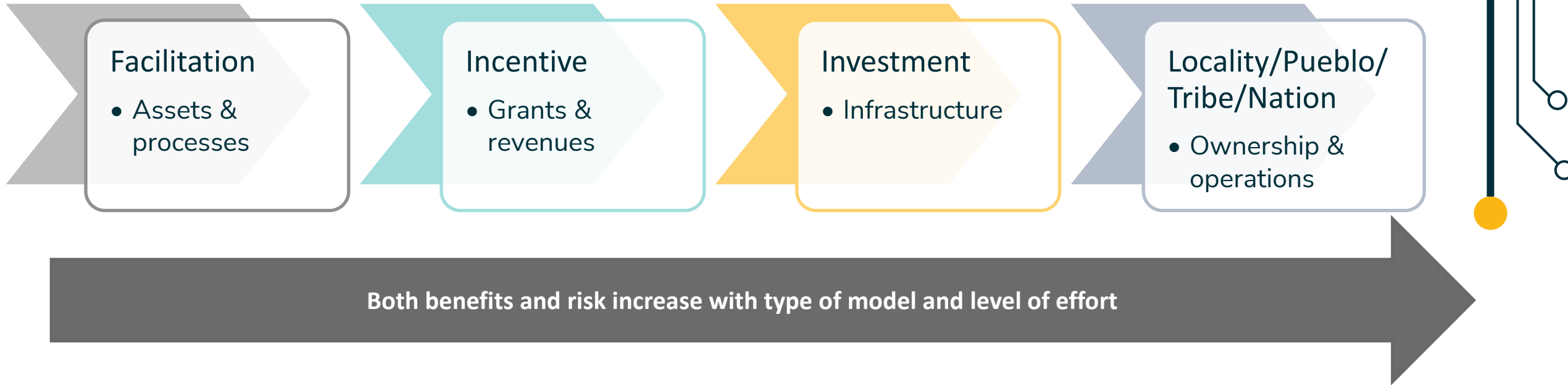
*Multiple  
emerging models*

Model 1: Facilitation. Public facilitation (and, potentially, financial support) of private investment

Model 2: Incentive. Award of grant or other financial value in return for enforceable commitments

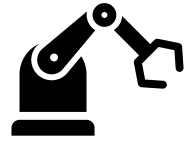
Model 3: Investment. Public ownership of an asset that is operated by a private entity

# Framework for Community Roles



# Understanding Broadband Risk

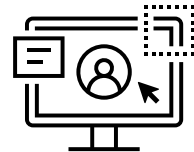
Construction Risk



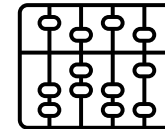
Market Risk




Operations Risk



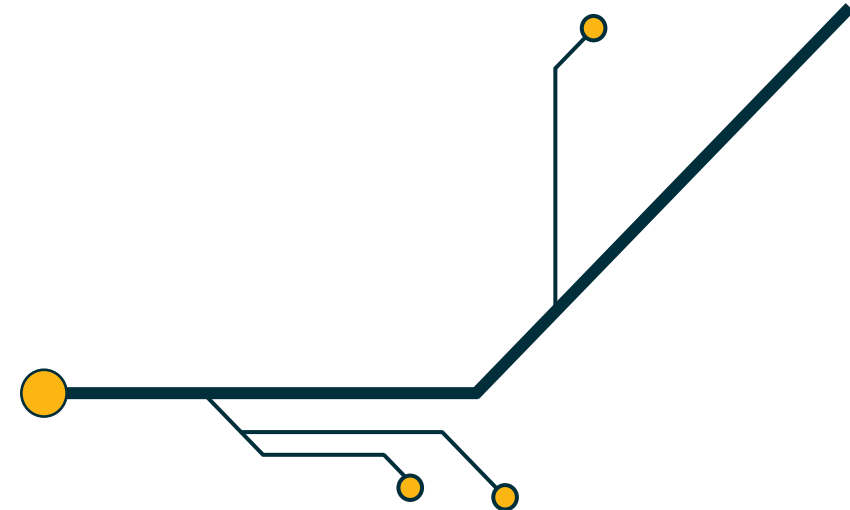

Technology Risk







# Locality/Pueblo/Tribe/Nation Broadband Model



# Overview of Locality/Pueblo/Tribe/Nation Broadband Model

- Understand the scope and elements of a fully integrated community broadband model
- Understand benefits, risks, and tradeoffs associated with this model

# Locality/Pueblo/Tribe/Nation Broadband: Public Role

In this traditional “municipal broadband” model, the locality, Pueblo, Tribe, or Nation owns, operates, and controls the full communications network

In this model, the community takes on all obligations and elements of the network:

- Financing/bonding
- Design
- Construction
- Ownership
- Maintenance
- Operations

All benefits, including revenues, are the community’s

At the same time, all risk sits with the community (and its lenders)

# Locality/Pueblo/Tribe/Nation Broadband Model Case Studies

These networks have many consistent elements, with appropriate local variation. Almost all are municipal electric utilities

## Chattanooga, TN

### Public role is comprehensive

- The Electric Power Board of Chattanooga (EPB) is a public utility owned by the City
- EPB owns the conduit and the fiber network and generates revenue through direct provision of service to end users

## San Bruno, CA

### Public role is comprehensive

- The city was an early municipal provider, building a cable TV network to create competition in the cable market
- San Bruno City Net has since added internet services to its offerings and has built FTTP in select areas, with legacy areas served over cable broadband infrastructure

## Alameda, CA

### Public role was comprehensive

- Alameda's city-owned electric utility built a cable and internet company in the early 2000s but did not meet financial goals
- The network was sold to Comcast a decade later

# Public-Private Collaboration Models



# Public-Private Collaboration Models

- Understand range of partnership and collaboration models
- Understand benefits, risks, and tradeoffs associated with each model



# Three Models of Public-Private Partnership (P3)

## Facilitation Model

- **Public facilitation of private investment**
- **Strategy:** Providing streamlined permitting, tax benefits, or access to public assets

## Grant/Incentive Model

- **Public financing of private infrastructure**
- **Strategy:** Using federal or state grant programs to partially fund privately owned broadband infrastructure

## Investment Model

- **Public financing of public infrastructure to be operated by the private sector**
- **Strategy:** A locality, Pueblo, Tribe, or Nation funding fiber itself, then leasing it to a private partner for operations (other strategies also possible)

# Model 1: Facilitation

**Public Role:** Public entity works with private company to reduce private entity's costs and increase revenues to facilitate private investment in broadband networks

- Permitting
- Inspections
- Access to assets such as existing fiber, conduit, real estate and vertical assets, right of way, easements
- Collaborations and meetings to discuss community needs, development planning, stakeholder engagement, and economic development
- Documentation and data sharing on asset inventory and gap analyses
- Collaboration on marketing and outreach to households for low-income programs



# Model 1: Facilitation

**Private Role:** The goal is to ensure effort from the private partner to address community broadband goals that could include a range of public policy priorities

- Investment in priority areas and connecting entire communities
- Offering low-cost plans, participating in low-income programs, and providing support and outreach for affordability programs and other digital opportunity programs
- Providing the public entity with a long-term lease or ownership of conduit or dark fiber within the private company's infrastructure build or elsewhere as a swap or trade

# Model 1: Facilitation

## Risk/Value Analysis:

- Locality/Pueblo/Tribe/Nation does not take on the risk of construction, revenue generation, marketing, and design of the network
- Locality/Pueblo/Tribe/Nation does not risk financial investment, but risks failed project or bankrupt partner leading to unrealized public benefits
- Locality/Pueblo/Tribe/Nation risks lack of long-term accountability
- Locality/Pueblo/Tribe/Nation must also be aware of the boundaries of legal and regulatory requirements for non-discriminatory and transparent treatment of service providers

# Model 1: Facilitation Model Case Studies

1

## City of Albuquerque

Created a Broadband Office and engaged with private providers to enable competition and coverage

- In 2022, Vexus Fiber committed to investing \$250 million to construct a fiber-to-the-premises network to every home and business
- In 2024, Gigapower, a commercial wholesale open access internet provider, committed to installing fiber in the city's right-of-way

2

## City of Memphis

Passed an ordinance amendment that streamlines permitting and right-of-way processes (including fee exemptions) for service providers that deploy fiber to low-income households and significant percentages of the city

- Resulted in a partnership to build and operate a fiber network that will pass at least 85 percent of premises in the city, including 85 percent of low-income premises

# Model 1: Facilitation Model Case Studies

In the facilitation model, the community assists the private investor to keep deployment costs low and to potentially increase revenues

## Lincoln, NE

### Public role

- The city developed a collaboration with local ISP ALLO that includes leasing of conduit and city-owned land, contributions of franchise fees to reduce service fees for low-income households, and efficient city processes

### Private role

- In return for the city's commitments, ALLO invested to pass all city addresses and matches the city's contribution to reduce costs for low-income households

## Lexington, KY

### Public role

- The city committed to expedited permitting and inspections, as well as facilitation through an ombudsman who would enable better city-company communications and collaboration

### Private role

- Private ISP Metronet agreed to universal buildout within a defined time

## Multiple cities nationwide

### Public role

- Cities competed to attract Google Fiber investment in FTTP
- Cities committed to expedited permitting and inspections, as well as access to public assets such as real estate and utility poles

### Private role

- Google Fiber agreed, without contractual commitments, to build in areas of its own selection
- Following changed business strategy, Google Fiber withdrew from markets

## Model 2: Grant/Incentive

**Public Role:** Public entity makes a financial investment of local, state, or federal funds to support private build and management of new infrastructure in exchange for committed public benefits

- Locality/Pueblo/Tribe/Nation uses a grant program and/or competitive bid/RFP process to structure and manage investment to targeted areas
- Community can determine the level of the financial investment necessary to meet community needs and create public benefits:
  - Build out targets in specific high priority areas of the community
  - Participation in low-income programs and offering of low-cost service plans
  - Ongoing reporting requirements
  - Future-proof and reliable communication networks, including strong service level agreements for public safety and other critical community services

## Model 2: Grant/Incentive

**Private Role:** The goal is to secure enforceable commitments from the private partner to meet public policy goals

In return, the private investor receives targeted funds that make the business case for investment in low-revenue markets

- Lower-income areas
- Lower-density areas

Through either a capital or operating grant, the business case is bridged to ensure adequate return on investment

- Up-front capital grant
- Longer-term operating subsidy or other committed revenue



# Model 2: Grant/Incentive

## Risk/Value Analysis

- Risk is dramatically mitigated because public commitment is limited by contract – and private obligations are enforceable by contract
- Construction and market risk are held by the private partner
- The community benefits from the positive elements of the broadband network, but its investment likely will not be returned through direct network revenues



# Model 2: Grant/Incentive Model Case Study

## New Mexico Office of Broadband Access and Expansion

OBAE awarded \$66.8 million in grants in 2023 for 11 projects to expand broadband to over 10,300 unserved locations in 23 communities

- Diverse communities, geographic locations, and business models
- Mostly fiber-to-the-premises projects
- Awardees provided cash and in-kind matching contributions of \$39.5 million



# Model 2: Grant/Incentive Model Case Studies

In the incentive model, the community provides a targeted capital or operating grant in return for enforceable commitments by the private partner

## Bloomington, IN

### Public Role

- The City contracted with Meridiam Capital for citywide FTTP
- The City provided access to conduit, rights-of-way, and other assets, as well as modest grant funding to ensure deployment to low-income areas

### Private Role

- Meridiam holds all construction and market risk and owns the network
- Meridiam committed to universal buildout and long-term commitments to provide very low-cost service to low-income households

## Scott County, KY

### Public Role

- The county used an RFP to identify a private investor to receive a grant in return for universal deployment of fiber in rural unserved areas

### Private Role

- Charter Cable was awarded a grant in return for enforceable commitments to deploy FTTP in unserved areas, boost speeds in already-served areas, and collaborate with the county to apply for federal grant funds that would reduce the county's own expenditures

## New York City, NY

### Public Role

- The city used a competitive process to award grants to companies to build and operate broadband infrastructure in priority neighborhoods

### Private Role

- Multiple private ISPs bid for city grants to serve target neighborhoods with fiber and/or wireless methods
- To compete for city funds, ISPs guaranteed free or very low rates for low-income households

# Model 3: Investment

**Public Role:** Public entity funds and owns the infrastructure, and private company has an agreement to lease, manage, and operate network a

- The locality/Pueblo/Tribe/Nation finances the deployment
  - Federal/state funding sources include USDA, EDA, ARPA
  - Municipal funding, special loan programs, special districts, and surcharges
- Locality/Pueblo/Tribe/Nation or partner can manage the design and construction process
- Community maintains ownership and long-term control over network
  - Can direct investment to priority areas and direct investment to meet local entity's internal needs and broadband goals
  - Can incorporate stakeholder and community input process and can reach out to regional and neighboring partners
  - Can rely on expertise of private partner in operations, marketing, services

# Model 3: Investment

**Private Role:** The network is made available to a private partner (one or more) in return for financial and other enforceable commitments

In exchange for access to the public asset, the private company agrees to:

- Operate the network under variety of terms including paying lease fees and/or sharing revenues
- Provide services to end user customers and can agree to conditions such as low-income and low-cost service offerings
- Possibly leverage public-owned network as catalyst for its own interconnecting set of facilities and expansion of service area

May incentivize smaller private companies with limited capital and limited facilities-based network

# Model 3: Investment

## Risk/Value Analysis

- Generally, the locality, Pueblo, Tribe, or Nation will still hold construction risk but the private partner will assume market risk; this is an efficient allocation of risk in most cases
- Some market risk may remain with the community if lease payments are based on partner revenues and fall short of the public entity's requirements
- The community benefits from the positive outcomes of the broadband network, and shares in some revenues from the network
- Long-term control and ownership enable the community to change course (and partner) after a defined lease term – and to negotiate favorable terms upfront

# Model 3: Investment Model Case Studies

1

## Jemez Pueblo

Funded the Tribally owned Jemez Pueblo Tribal Network in New Mexico using federal and state grants and partnering with BigByte and i9 for engineering, distribution, and deployment

- Now provides service to government offices and 500 homes

2

## City of Jacksonville, IL

Paid for part of an ISP's infrastructure cost to bridge the business case in likely low-return areas of the city

- The city's investment resulted in ubiquitous fiber
- Investing in only those areas was four to eight times cheaper than paying for a complete citywide fiber network, according to city leadership

# Model 3: Investment Model Case Study

## Los Alamos County

- In an August 2023 RFP, the county announced it is seeking a P3 to result in “a County-owned open access Community Broadband Network for reliable best-in-class delivery of broadband services to residents and businesses.”
- The RFP indicated the County may be willing to fully fund the network and to provide access to its publicly owned conduit, fiber, and poles for its partner to leverage in construction and operation of the network

# Model 3: Investment Model Case Studies

In the investment model (public ownership/private operations), the community builds, maintains, and owns a fiber network that is leased to a private ISP for operations—ideally with the private ISP taking all or most of the market risk involved

## Westminster, MD

### Public Role

- The city financed, built, and maintains a citywide fiber network
- Through a competitive process, the city leased the fiber to Ting Internet for 20 years

### Private Role

- Ting builds drops to the customer premises and handles all areas of operations
- Ting pays the city based on number of passings as well as number of customers

## Huntsville, AL

### Public Role

- Huntsville Utilities funded and built a citywide fiber network
- The utility entered into a 20-year non-exclusive arrangement with Google Fiber to lease and operate the fiber

### Private Role

- Google Fiber is obligated to build drops to the customer premises and manage all operations on its fiber strands, as well as to provide services citywide
- While the arrangement could accommodate additional private fiber lessees, none has approached the city

## Dublin, New Hampshire

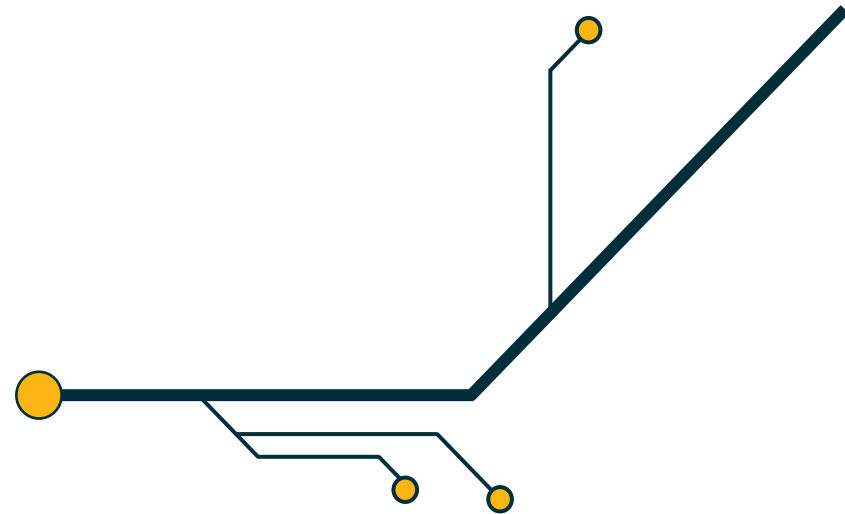
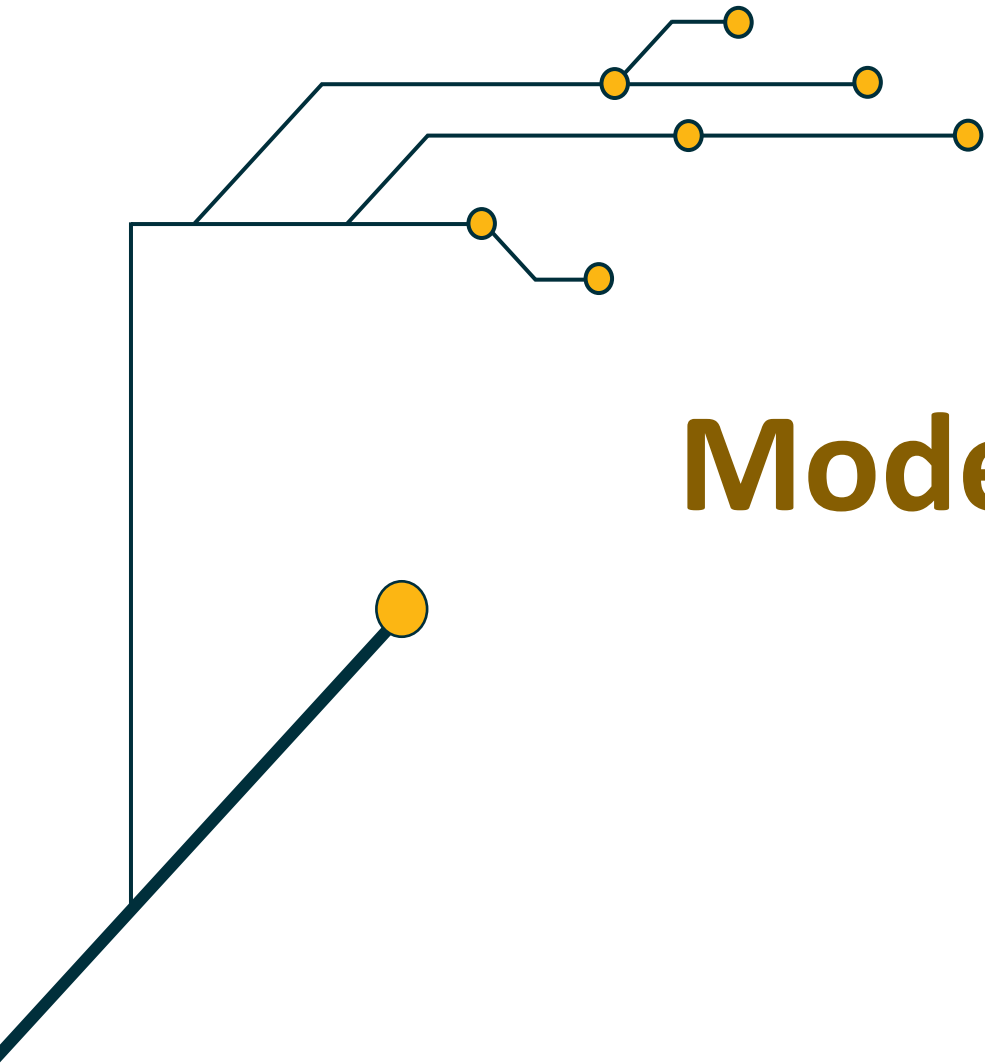
### Public Role

- City bonded to finance a deployment of FTTP
- City negotiated agreement with incumbent telco to build & operate the fiber, assuming all market and construction risk

### Private Role

- CCI built and operates the city-owned asset and has full responsibility for all areas of execution other than raising capital
- CCI can charge a monthly fee to customers to cover the cost of its access to the city fiber

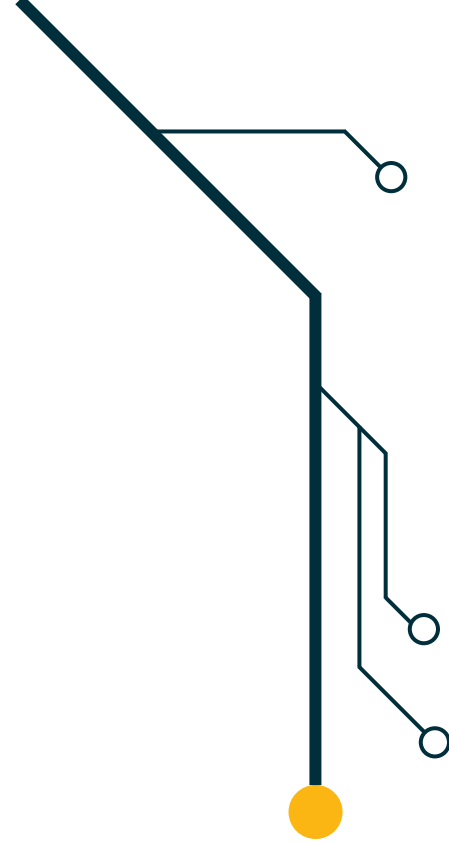
# Model Comparison





# Model Comparison

- Understand the elements of each model, as compared to the others, and the necessary capabilities for your community



# Business Model Comparison

The business models vary in strengths and weakness, often having to do with organizational capacity and appropriate allocation of risk

	Locality/Pueblo/Tribe/Nation Broadband	Partnership model 1: Facilitation	Partnership model 2: Incentive	Partnership model 3: Investment
Strengths	Puts long-term control in the community's hands, along with all decision-making	Low-risk approach allows a community to use best practices to make private investment more attractive and faster	Allows a community to use financial means to attract and shape private investment	Addresses public sector strengths in financing, building, and maintaining infrastructure, while enabling offsetting of risks, particularly market risk
Weaknesses	Control requires risk, and this model allocates all risks to the public entity, including construction, operations, and market risks	With private investment, there is little control or even robust influence for the community—and it is subject to the private entity's choices	Despite a financial commitment, the community does not own any asset in the long run	Requires significant capital and effort to finance, design, build, and maintain a fiber asset

# Business Model Comparison

These strengths and weaknesses suggest a series of core capacities required for each business model

	Locality/Pueblo/Tribe/Nation Broadband	Partnership model 1: Facilitation	Partnership model 2: Incentive	Partnership model 3: Investment
Permitting/inspections/public process efficiency	High	High	High	High
Engineering/construction expertise (ability to manage construction risk)	High	n/a	n/a	High
Operations expertise (ability to manage market risk)	High	n/a	n/a	n/a
Marketing/sales expertise (ability to manage market risk)	High	n/a	n/a	n/a
Network maintenance expertise (ability to manage opex risk)	High	n/a	n/a	High
Ability to attract & retain broadband industry talent	High	n/a	n/a	Medium

# Additional Considerations



# Additional Considerations

Understand some of the considerations for planning, procurement, and protection of your community as you develop a potential partnership



# Value and Risk of Partnerships:

## An Effective Public-Private Partnership Adds Value to Broadband Policy Goals

### Shape

- Broadband investment in communities that do not currently attract private capital
- Projects that identify and leverage capabilities of each partner to advance public policy goals

### Mitigate

- Risks of investment, construction, operations, demand between public and private partners
- Delays in processes and execution of projects

### Increase

- Competitiveness for grant opportunities and additional private investment
- Opportunities for engagement, investment, and cooperation among stakeholders

# Competitive Process Can Protect the Community

## Qualifications and Capacity

- Demonstration of managerial, technical and financial qualifications
- Track record

## Strong Contractual Protection

- Resulting contracts that include clear, enforceable obligations on both sides to ensure public benefits will materialize and can last beyond initial grant period
- Mechanisms for ongoing reporting, enforcement, and changes in course if necessary

## Competitive Pricing

- Ideally, competitive process will result in better financial terms

# Customization and Localism

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Identification and framework of partnership models allows for common terminology and analysis of different proposals

But one size, or even three models, do not fit all partners

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Models should be designed locally to meet local needs

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**Models can be combined –** maximizing the most appropriate elements of each

**E.g., Combined incentive and facilitation model:** Modest public grants can be combined with efficiencies regarding public processes

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**E.g., Combined incentive and investment model:** Existing public infrastructure can be leveraged and combined with grant funding to enable a private entity to both manage a public asset and build its own network to expand service areas

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