

THE EMERGING WORLD of BROADBAND PUBLIC-PRIVATE PARTNERSHIPS A BUSINESS STRATEGY and LEGAL GUIDE

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**The Emerging World of Broadband Public–Private Partnerships:
A Business Strategy and Legal Guide**

This report was written by Joanne Hovis and Marc Schulhof, Jim Baller and Ashley Stelfox and published by the Benton Foundation.



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Dedication

The authors dedicate this guide in loving memory of our dear friend and mentor, Charles Benton, whose life's work served as a perfect demonstration of his belief that the public and private sectors can work together in the better interests of our nation.

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Executive Summary

Balancing Risk, Benefit, and Control in Broadband Public–Private Partnerships

Local governments increasingly see before them exciting new opportunities to develop next-generation broadband in their communities—and to reap the many benefits that broadband will deliver to their residents and businesses. Many localities are likely aware of Google Fiber and municipal fiber success stories—but emerging public–private partnership models present an alternative for the many communities that lack the capital or expertise to deploy and operate fiber networks, or to act as Internet service providers (ISP), on their own. These models include

- Private investment, public facilitation – The model focuses not on a public sector investment, but on modest measures the public sector can take to enable or encourage greater private sector investment. Google Fiber is the most prominent example, but there is significant interest among smaller companies such as Ting Internet.
- Private execution, public funding – This model, which involves a substantial amount of public investment, is a variation on the traditional municipal ownership model for broadband infrastructure—but with private rather than public sector execution. The model removes significant logistical barriers from large-scale public broadband projects. While the field is constantly changing, at least three companies have emerged with fully articulated business propositions for localities.
- Shared investment and risk – In this model, localities and private partners find creative ways to share the capital, operating, and maintenance costs of a broadband network. The City of Westminster, Maryland, partnered with Ting Internet in the most prominent example of this approach. (The City of Santa Cruz, California, has replicated the Westminster model, and we expect other communities to do the same.)

As localities evaluate broadband public–private partnerships, they should consider both the opportunities and potential pitfalls, and pay particular attention to three interwoven issues:

- 1 Risk
- 2 Benefit
- 3 Control

These factors are the key considerations not only for state and local governments, but also for private sector network operators and service providers. A successful partnership must align each side’s needs, and will inevitably involve trade-offs within this framework.

Our “Checklist for Building a Partnership” (Attachment A) summarizes the models and identifies some of the local government priorities that will drive many public sector decision-makers.

Legal Issues in a Broadband Public–Private Partnership Project

The second portion of this paper addresses the major legal issues that may arise in a broadband public–private partnership project, from early planning through the negotiating stage. The legal portion of the paper

is written with a public sector audience in mind, but the general legal principles are relevant for any party considering participating in a broadband public–private partnership project.

The legal portion of this paper is divided into three sections, which collectively address the three main stages in the public–private partnership development process: confirmation of authority, pre-negotiation project planning, and negotiation of the agreement.

The first section focuses on the public entity’s legal authority to enter into a broadband public–private partnership and on the procedural requirements that the entity may have to meet to act on that authority. More than half of states have laws that specifically address public–private partnerships, and several states have constitutional or statutory provisions that may limit or specify how a public entity can participate in such a project. Local charters, ordinances, franchises, or agreements may also impose important substantive or procedural requirements. Parties considering a public–private partnership must not only read the text of these measures, but they must also analyze the relevant case law. Even after thorough analysis, not every state will have laws—statutory or otherwise—that implicate broadband public–private partnerships, and states have varying rules for dealing with localities that are acting in the absence of clear state law authority. Some states are permissive, while others are restrictive. Careful, early legal research is also important not only because it may avoid costly and protracted litigation, but also because public entities that identify legal barriers might be able to develop alternative ways to achieve their goals.

The second section addresses the key factors that parties typically consider in framing the general structure of the partnership. Public–private partnerships can take many forms, depending on multiple factors, and in this second stage, the parties work through the options and select the one that works best for them. The considerations include various alternative financing mechanisms; how the services in question will be regulated; potential access to grants, low-interest loans, and other incentives of various kinds; access to public rights-of-way and facilities; organizational/governance issues; tax issues; and much more.

The third section provides an overview of the negotiation stage. As discussed in the business portion of this paper, there are several models for broadband public–private partnerships, and the complexity and amount of time needed to complete the negotiation process will depend on the model and the size of the project. In particular, the parties typically consider who is best suited to handle responsibilities like building, operating, and marketing the network. They must also consider what risks are involved in the project and who will bear which risks. For example, there may be dozens of different kinds of contingencies, ranging from squirrels nibbling fiber lines to previously undiscovered environmental factors to natural disasters. As a result, the negotiation stage will likely be the most time-consuming part of the partnership development process.

Finally, there is no single reason for building a network, and most parties anticipate receiving rewards of various kinds. These may not merely include revenues, but also less quantifiable benefits. For example, a municipality might be especially interested in promoting economic development, educational opportunity, enhanced public safety, and open access to broadband. A new provider may be willing to forgo some immediate revenues in order to develop a track record from which it may benefit in future projects. In short, each project is different, and there will be multiple ways in each one to reach “win-win” outcomes for all concerned.

1. Introduction

Local governments increasingly see before them exciting new opportunities to develop next-generation broadband in their communities—and to reap the many benefits that broadband will deliver to their residents and businesses. The goal of most of these communities is to get fiber to every home and business. Once the fiber is available, the sky is the limit in terms of offering gigabit-and-beyond speeds today and well into the future. Fiber also offers symmetrical speeds—a key differentiator for next-generation service providers compared to incumbent telephone and cable companies whose upload speeds typically lag far behind download speeds.

Many localities are likely aware of Google Fiber and municipal fiber success stories such as Chattanooga, Tennessee; Wilson, North Carolina; and Lafayette, Louisiana. In addition, emerging public–private partnership models are being developed and implemented by communities that lack the capital or expertise to deploy and operate fiber networks, or to act as Internet service providers (ISP), on their own. These models include:

- Localities encourage new private investment through economic development incentives and other measures to reduce costs for private sector infrastructure deployment;
- Localities negotiate formal public–private partnerships that resemble transit and toll-road construction projects, with public funding and private execution; and
- Localities create hybrid models where a locality and private partner find a creative way to share the capital, operating, and maintenance costs of a broadband network.

This primer is organized in two sections. In the first part, we provide a strategic overview of broadband public–private partnerships, examples of three models, and a framework for public sector entities to consider as they evaluate potential models, assess potential partners, and set goals for a partnership. In the second section, we address the key legal issues that arise in each of the three major stages of the development of a public–private partnership deal: confirmation of authority, pre-negotiation project planning, and negotiation of the agreement.¹

2. Understanding Business Strategy for Partnerships

As localities evaluate broadband public–private partnership models, they should consider both the opportunities and the potential pitfalls, and should pay particular attention to three interwoven issues:

- 1 Risk
- 2 Benefit
- 3 Control

These factors are the key considerations not only for state and local governments and other public sector decision-makers, but also for private sector network operators and service providers. A successful partnership must align each side’s needs, and will inevitably involve some trade-offs within this framework.

It is important to note that we have only a handful of data points on different models for broadband public-private partnerships. Google Fiber has, through its deployments, alerted other companies to the business opportunity in building and operating local broadband networks—and the number of potential investors and partners is increasing. As a result, there is a widening range of opportunities for the public sector. There is no clear-cut strategy, and any community that is breaking new ground is taking on some risk—but the potential benefits are considerable and the opportunity for public sector innovation and creativity has never been greater.

2.1 Broadband Public-Private Partnership Framework

Public-private partnerships exist on a continuum of risk, benefit, and control. Figure 1 illustrates these trade-offs from a public sector perspective.

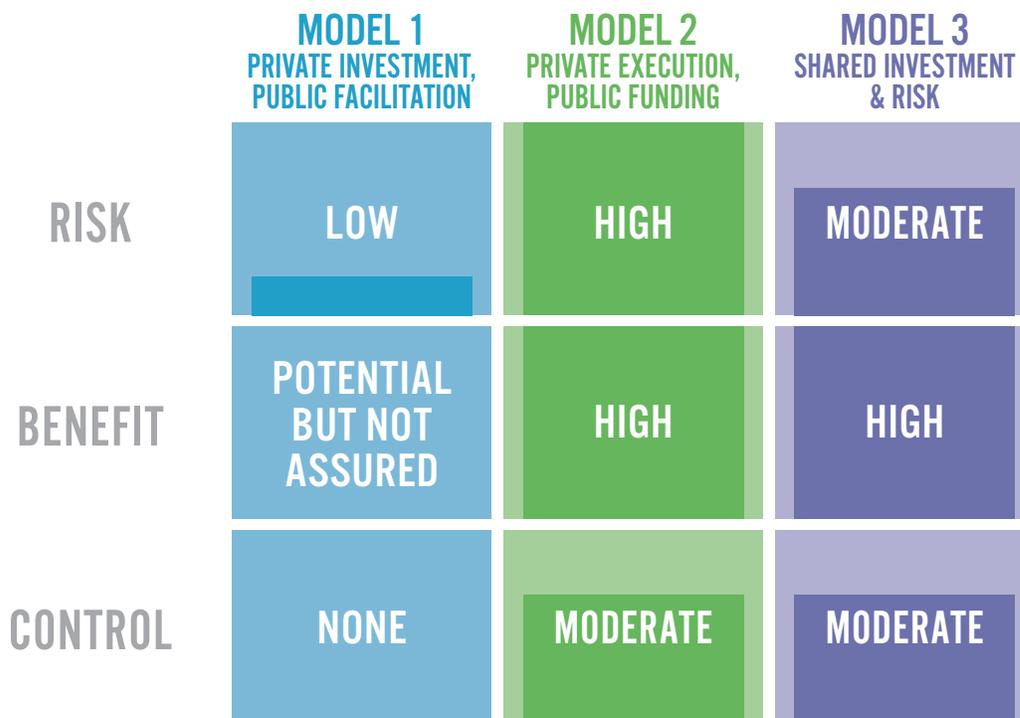


Figure 1: Trade-offs Among Risk, Benefit, and Control in Public-Private Partnership Models

On one end of the risk spectrum, there is private investment with public facilitation—the lowest-risk model for the public sector. In this model, there is no public control and the private sector makes decisions about where and when to build. Google Fiber and other competitive providers are coming in to local markets and building networks with public sector facilitation and perhaps some modest public sector cost support in the form of dedicated public staff (to support the deployment process) or economic development credits.

This model entails relatively modest public cost (though it could entail considerable staff time and effort) and less public risk than other models, but it also gives the private sector partner complete control over the

deployment of the infrastructure—and the public sector may receive more modest benefits as a result. But, assuming there is a partner out there, this is a great model for a risk-averse public sector entity.

On the far side of public risk, there is the traditional model of public funding with turnkey private execution—beginning with financing and going all the way through to operations, service provision, and customer service. There is considerable public risk here; the public sector is not bonding, but it is funding the private partner. And even if there is a mechanism for long-term revenues within the project to potentially offset public cost, the risk frequently will be on the public sector side if those revenues do not materialize.

The more the private partner is willing to assume some of that risk, the more attractive this model becomes for the public sector. But that assumption of risk will frequently make the private partner’s financing more costly—which, in turn, will increase the public sector payments or end user fees.

With the exception of communities fortunate enough to attract investment from a private sector partner that will pay the capital cost of fiber deployment, most public–private partnerships will require some amount of public investment. But as public funding increases, so does the potential leverage the public has to exert control over the project itself, including the ability to focus on specific outcomes. This might lead to greater benefits for the community (see Figure 2).

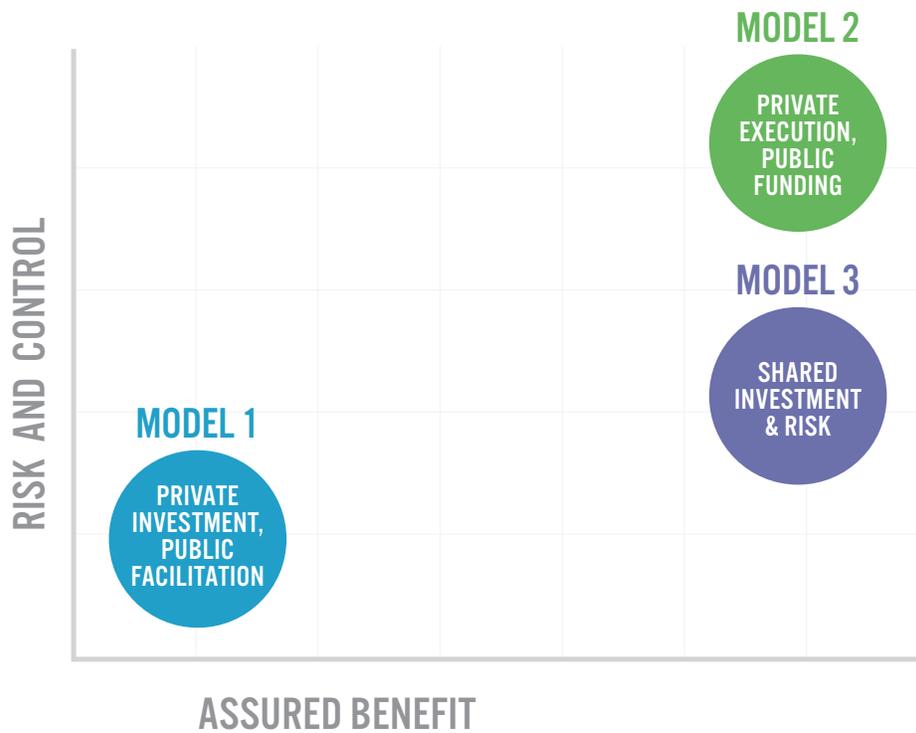


Figure 2: Balance of Risk/Control and Benefit in Public–Private Partnership Models

The middle ground between the public funding and private funding partnership frameworks is the shared-risk model in which a public sector entity develops some kind of creative partnership with a private sector entity. This model may be most attractive to a public sector entity that is either not able to attract a fully-

private investment, or feels strongly that it wants to invest in the infrastructure as a means of securing some level of access and control.

This model depends on a negotiated agreement between the partners, so the outcome is highly dependent on each partner's priorities and the ability of the partners to develop and agree to win-win outcomes. The partners share costs, risks, and control—and the community is able to achieve its policy goals and desired benefits without bearing 100 percent of the risk as it does in the traditional public funding model.

In the sections below, we explore the three models and the trade-offs each entails within this framework.

2.2 Model 1: Private Investment, Public Facilitation

In this approach to public–private partnership, the public sector's cost is significantly reduced. The model focuses not on a public sector investment, but on modest measures the public sector can take to enable or encourage greater private sector investment. The most prominent example of this model is Google Fiber's deployments, including its networks in Austin, Kansas City, Nashville, and elsewhere. Ting Internet² is taking a similar approach in smaller markets, including Holly Springs, North Carolina.

This model is seen as the ideal for many communities that wish to minimize public cost. At least in Google Fiber's deployments, the private sector partner's requirements have largely focused on making local government processes more efficient. In return for these relatively low-cost public sector commitments, the communities that are partnering with Google Fiber or Ting Internet benefit from the company's deployment of fiber-to-the-home (FTTH) infrastructure (and, in many cases, competitive upgrades by the incumbent cable and telephone companies).

This model relies on the private companies to make the investment, while partner communities take certain steps to enable them to build in an expeditious, efficient, low-cost manner. Though Google Fiber is the most prominent example, there is also significant interest among smaller companies—which have fewer resources than Google but can deliver next-generation broadband to businesses and institutions on a targeted basis.

While this model reduces the public sector's cost and risk compared to other models, there is a potential public relations risk. Public expectations can get very high with the announcement of new fiber deployment. If a local government is strongly identified as a partner, it may be held accountable by the community if something goes wrong with the private sector partner's business plan or deployment.

2.2.1 Strategies for Encouraging Private Investment

There are a number of strategies localities can take to encourage new private investment and reduce some of the costs and time for private sector entities to deploy advanced broadband services. These can, for example, take the form of specific economic development incentives such as tax benefits to encourage providers to build new infrastructure. MetroNet, a small Midwest ISP, developed a partnership with the City of Crawfordsville, Indiana, to purchase the municipal utility's fiber network.³ The city is assisting MetroNet with financing the purchase and expanding the footprint of the fiber network.

Communities typically offer these incentives to new entrants that are willing to invest in next-generation infrastructure, but may also offer these incentives to incumbents if the incumbents are willing to invest in the same kind of infrastructure.

Another key strategy is for the community to develop and strengthen the local infrastructure assets that

enable the deployment of broadband.⁴ These include public assets such as fiber, conduit, and real estate. For example, new network deployments can benefit enormously from access to existing government fiber strands, underground communications conduit in which fiber is placed, or real estate where equipment or exterior huts can be located.

Communities can further facilitate the underground construction of conduit and fiber by implementing a “dig-once” policy.

Communities can further facilitate the underground construction of conduit and fiber by implementing a “dig-once” policy for all road and related transportation projects, and facilitating in-building access through construction specifications for new buildings.⁵

Building and expanding community infrastructure over time is a low-cost, low-risk strategy that will have real impact and expand options down the road. For example, the City of Mesa, Arizona, began a dig-once initiative in the early 2000s; the city intended to install its own rings of conduit during private sector construction projects, then sell access back to the private sector. Any time the city opened up a street, such as to install water or sewer utilities, it put in conduit.⁶ In some instances, the city also added fiber to empty conduit for city purposes or to potentially lease to private providers. In total, the city installed as much as 200 miles of conduit.⁷ Mesa targeted four economic development areas in particular, with redundant conduit, fiber, and electric infrastructure.⁸ Among those areas was the land around the Phoenix-Mesa Gateway Airport, where Apple announced in early 2015 that it would build a \$2 billion data center.⁹

A third important strategy is to improve access to information—an asset that communities might not have considered.¹⁰ Sharing information demonstrates a willingness to engage with the private sector to spur investment. Communities should seek to make data available wherever possible both for public and private uses.

Geographic information systems (GIS) or similar databases that hold information such as street centerlines, home and business locations, demographics, and details on existing utilities, public infrastructure, rights-of-way, and available easements can be extremely helpful for a locality’s own broadband planning, potential public–private partnerships, or a network service provider that is evaluating the deployment of new infrastructure in a community.

Access to this information may attract and speed new construction by private partners, while enabling the community to meet its goals for new, better broadband networks—and potentially to realize revenues for use of the assets.

Finally, localities can take steps to enable broadband construction by making government processes around permitting, rights-of-way access, and inspections more efficient and smooth.¹¹ In some communities, for example, permitting processes have been moved online, alleviating the need for wasteful and time-consuming paper-based processes. These actions can signal to private partners that there is an investment opportunity in the jurisdiction and that the locality will not be a bottleneck or create additional costs.

These steps should take into consideration the needs of the community, balance public interest and public safety, and account for local resources and capacity. For example, localities can choose to be fully transparent about their permitting and rights-of-way processes—including timelines—to enable the communications industry to expeditiously plan and deploy networks.

2.2.2 Potential Benefits and Pitfalls

Communities should be wary of private sector entities seeking benefits without offering concrete investment proposals.

The above strategies can make a difference in the economics of buildout for a private partner. However, they will not dramatically change the underlying economics of broadband network construction and operation. In a best-case scenario, the public sector can reduce the cost of outside plant construction for a broadband network by up to an estimated 8 percent.¹²

Thus these measures can be substantial, but not transformative. Indeed, many incumbent providers overstate the extent to which local government and regulation are hurdles for developing next-generation broadband infrastructure.

Communities should be wary, then, of private sector entities seeking benefits without offering concrete investment proposals. From a business standpoint, for example, incumbents do not need additional support from the locality to keep maintaining (or even upgrading) their existing broadband networks and services.

2.2.3 Case Study: Holly Springs, NC

Over the course of many years, the Town of Holly Springs designed, engineered, and constructed a backbone fiber network to connect municipal buildings. To their great credit, Holly Springs' visionary elected officials chose to build a fiber network with dramatically higher capabilities than the need apparent at the time—knowing that a robust fiber backbone might attract interest from private ISPs that recognize the potential to leverage that backbone to more efficiently build their own FTTH infrastructure.

But a robust backbone network was not enough. The town's government also developed policies and strategies to attract private broadband investment. As a result, Ting Internet announced in mid-2015 that it will bring "crazy fast fiber Internet" to the homes and businesses of Holly Springs. Ting plans to expand on Holly Spring's existing fiber pathways and offer symmetrical gigabit Internet access to homes and businesses.

A key factor in Ting's decision to invest in Holly Springs was the fact that the town not only was willing to lease excess fiber in its backbone, but that it also brought best practices to bear in its willingness to work with Ting and facilitate Ting's efforts. Among other things, the town offered efficient government processes, access to information and facilities, and facilitation and support—all of which boosted Ting's confidence about this community as an investment opportunity.

2.3 Model 2: Private Execution, Public Funding

This model, which involves a substantial amount of public investment, is a variation on the traditional municipal ownership model for broadband infrastructure—but with private rather than public sector execution. In this model, a selected private partner takes responsibility for some combination of design, construction, financing, operations, and maintenance¹³ funded by the public partner over some period of time.

While this public–private partnership structure is new to broadband, it is used in Europe and increasingly in the U.S. for traditional infrastructure projects such as highways, toll roads, and bridges. The model seeks to leverage the strengths of the private sector to deliver turnkey services and solutions over an extended time of 20 to 40 years.

This model is a promising means to develop a network that can serve the entirety of the community, not just the parts selected by a private investor.

Unlike transportation or utility infrastructure, however, broadband does represent a somewhat competitive marketplace. Thus, applying the model to broadband in the U.S. creates political and financial risk for the public sector because public funding is used to fund an infrastructure that some residents may not want or choose to use. Indeed, if the broadband network is unsuccessful at generating revenue to cover all public sector costs, the public sector often remains on the hook for those payments. At its core, this model thus involves the public sector essentially becoming the guarantor in the event that the partnership does not secure sufficient revenue to cover all costs, including the profit margins required by the private partners.

And for communities that think this is a way to get financing without bonding, that is only partially true. The public sector partner does not have to bond, but the partnership financing will most likely be considered by auditors, state authorities, and the bond markets as counting against the public sector entity's borrowing capacity.

Despite these risks, the model offers considerable benefits to the public sector by removing significant logistical barriers from large-scale public broadband projects and offering a comprehensive solution for the entire community, including extensive turnkey private execution and private capital.

One of the most fascinating aspects of the huge escalation in interest in this space over the past few years (catalyzed significantly by Google Fiber) is the emergence of a group of companies that are working with traditional public-private partnership models to develop strategies for enabling local governments to get FTTH networks built.

While the field is very fast developing and constantly changing, at least three companies have emerged so far with fully articulated business models and business propositions for localities: Macquarie Capital, SiFi Networks, and Symmetrical Networks.

All three companies are proposing interesting and innovative approaches—each with the same core concept, though with considerably different detail: The public sector's willingness to contract in the long term is what will enable and secure construction of the network.

These variations on the private execution, public funding model are as of yet untested; we urge caution for that reason. But we note that this model is a promising means by which to develop a network that can serve the entirety of the community, not just the parts selected by a private investor.

2.3.1 Macquarie Capital

Macquarie Capital and its partner companies, which have pioneered this model in the broadband market in the U.S.,¹⁴ will provide financing, construction, operations, and service delivery over the network. To fund all this activity and investment, the locality will pay Macquarie on an ongoing basis by placing a monthly fee on all local property owners' utility bills. Macquarie intends that multiple ISPs will compete over the network, giving consumers a choice of providers and the benefits of price competition (and creating a revenue stream for ISPs, who will pay Macquarie). Macquarie projects that network revenues will grow substantially over time. As service revenues generated by the ISPs increase, Macquarie commits to sharing some of its revenues with the locality.

For the past couple of years, Macquarie has been engaged in negotiations with the UTOPIA Network, an FTTH network in Utah that is owned by 15 member communities,¹⁵ to deploy this model. UTOPIA members

have been considering turning over the operation and management of their existing network to Macquarie, which would finish construction of the network and provide Internet service to all residents of the member communities for 30 years in exchange for a monthly utility fee paid by all property owners.¹⁶ The proposal is attractive to some in the communities given the turnkey private financing, deployment, operations, and revenue-sharing solution that Macquarie promises to deliver. However, the requirement of guaranteed public funding in the form of a utility fee paid by all residents is not politically acceptable in some UTOPIA member communities, so a small handful of communities have dropped out of consideration of the proposal.

Macquarie is an experienced and sophisticated entity, and offers an attractively comprehensive solution. We note, however, that its open access business model is not tested and that the utility fee is likely to prove a heavy lift politically in most American communities.

2.3.2 SiFi Networks

In the SiFi Networks approach to this model, a local FTTH network is built and operated by SiFi and its partners at public sector expense. SiFi will provide financing and, with its partners, turnkey construction and operations—all of which will be compensated by lease payments from the public sector partner. SiFi will then bring to the community one or more ISP partners, with which the locality will contract to provide open access services over the network.

In SiFi's vision, the ISPs will make minimum payment guarantees to the locality in return for the opportunity to provide services over the network. Those amounts will be negotiated and based on the public sector partner's actual costs. If multiple competing ISPs or even a single ISP is willing to make such commitments on a long-term basis, and if those ISPs are viable entities—with commitments backed by real resources—then the model will reduce the public sector partner's risk in terms of the ongoing payments to SiFi and its partners.

The viability of the model thus hinges on the willingness of ISPs to make such commitments, and the ISPs' confidence that they can realize sufficient revenues and margins to justify the commitments.

As with the Macquarie model, the SiFi model is exciting and promising, but, so far, untested.

2.3.3 Symmetrical Networks

In Symmetrical Networks' version of this model, Symmetrical and its partners will build the network, which will be operated by an ISP chosen by the public sector partner. That operator may be an ISP that is a partner to Symmetrical, it may be the public sector entity itself, or it may be any other qualified network operator.

Symmetrical does not follow the multiple-ISP open-access approach anticipated by SiFi and Macquarie; rather, it intends that open access will happen “over the top” (OTT), when consumers select their own application providers over an unfettered data connection with no data cap.

Symmetrical will build, finance, and provide turnkey construction for an FTTH network, and the public sector partner will make a lease payment to Symmetrical that will cover the company's debt service, operating costs, and margin. The public sector entity will, in turn, be paid by the ISP. In Symmetrical's modeling, the ISP will pay the locality an amount equal to the locality's obligations to Symmetrical.

Symmetrical believes that this model is viable based on a minimum community-wide take rate of 35 percent. To reduce the public sector partner's risk, Symmetrical will not undertake a project unless city-wide, aggregated commitments at this level have been secured in advance.

As with the SiFi and Macquarie models, the viability of this model hinges on the selected ISP's ability to generate sufficient revenues to cover its required payment to the public sector entity (which equals the locality's required payment to Symmetrical), its costs, and, presumably, an acceptable operating margin. While Symmetrical is confident that this model is viable, it is also quite frank that the public sector entity bears the risk in the event that network revenues fall short of the obligated levels.

2.4 Model 3: Shared Investment and Risk

A public-private partnership model based on shared investment and risk plays to the strengths of both the public and private sector partners. Most localities consider FTTH deployment not as a moneymaker, but as a powerful tool for education and economic development. Thus in a shared investment model, the risk is shared but the community still receives 100 percent of the benefits it seeks—recognizing that the benefits do not all appear on the project's financial statements. For the private partner, a shared investment means less upfront capital (risk), with an opportunity for future revenues.

This model will provide an institutional or public sector network of the future—more extensive than any network that served city or county needs in the past.

Among other enormous benefits to this model, cities can not only provide fiber to the private sector—for compensation and to get gigabit and beyond service to the public—but can also secure extensive fiber throughout their communities for internal uses, including municipal and municipal utility operations, public safety, and emerging Smart City and Internet of Things (IoT) applications.

This model will provide an institutional or public sector network of the future—more extensive than any network that served city or county needs in the past, because the fiber will go everywhere in the community. It will have the potential to serve every conceivable application, from traffic signal control to air quality monitoring, from robust and secure public safety communications to high-end videoconferencing between universities and schools.

This benefit is ancillary to the core benefit of enabling a competitive gigabit (and beyond) product over fiber to every home and business in the community—but, in the long run, it has the potential to enable transformative public sector use and services. And indeed, local governments' track record of securing considerable savings and enormous operational capabilities over fiber is already demonstrated.¹⁷

We note, however, that while this model offers an extraordinary opportunity for innovation, it is in no way a sure thing for communities. We do not have the data points to develop the best practices necessary for success. At the moment, early actors are developing new and exciting partnerships to bring next-generation broadband to their communities. We describe some of those projects in the brief case studies below.

2.4.1 Case Study: Westminster, MD

The City of Westminster, Maryland, is a bedroom community of both Baltimore and Washington, D.C., where 60 percent of the working population leaves in the morning to work elsewhere.¹⁸ The area has no major highways and thus, from an economic development perspective, has limited options for creating new jobs. Incumbents have also traditionally underserved the area with broadband.

The city began an initiative 12 years ago to bring better fiber connectivity to community anchor institutions through a middle-mile fiber network. In 2010, the State of Maryland received a large award from the federal

government to deploy a regional fiber network called the Inter-County Broadband Network (ICBN) that included infrastructure in Westminster.¹⁹

Westminster saw an opportunity to expand the last mile of the network to serve residents. At the time, though, it did not have any clear paths to accomplish this goal. City leaders looked around at other communities and quickly realized that they were going to have to do something unique. Unlike FTTH success stories such as Chattanooga, Tennessee, they did not have a municipal electric utility to tackle the challenge. City leaders also did not have the resources, expertise, or political will to develop from scratch a municipal fiber service provider to compete with the incumbents. As a result, they needed to find a hybrid model.

As the community evaluated its options, it became clear that the fiber infrastructure itself was the city's most significant asset. All local governments spend money on durable assets with long lifespans, such as roads, water and sewer lines, and other infrastructure that is used for the public good. The leaders asked, "Why not think of fiber in the same way?" The challenge then was to determine what part of the network implementation and operations the private sector partner would handle and what part could be the city's responsibility.

The hybrid model that made the most sense required the city to build, own, and maintain dark fiber, and to look to partners that would light the fiber, deliver service, and handle the customer relationships with residents and businesses. The model would keep the city out of network operations, where a considerable amount of the risk lies in terms of managing technological and customer service aspects of the network.

The city solicited responses from potential private partners through a request for proposals (RFP). Its goal was to determine which potential partners were both interested in the project and shared the city's vision.

The city eventually selected Ting Internet, an upstart ISP with a strong track record of customer service as a mobile operator. Ting shared Westminster's vision of a true public-private partnership and of maintaining an open access network. Ting has committed that, within two years, it will open its operations up to competitors and make available wholesale services that other ISPs can then resell to consumers.

Under the terms of the partnership, the city is building and financing all of the fiber (including drops to customers' premises) through a bond offering. Ting is leasing fiber with a two-tiered lease payment. One monthly fee is based on the number of premises the fiber passes; the second fee is based on the number of subscribers Ting enrolls.

We believe this is a highly replicable model

Based on very preliminary information, given that this is a market in development as we write, we believe this is a highly replicable model.

What is so innovative about the Westminster model is how the risk profile is shared between the city and Ting. The city will bond and take on the risk around the outside plant infrastructure, but the payment mechanism negotiated is such that Ting is truly invested in the network's success.

Because Ting will pay Westminster a small monthly fee for every home and business passed, Ting is financially obligated to the city from day one, even if it has no customers. This structure gives the city confidence that Ting will not be a passive partner, because Ting is highly incented to sell services to cover its costs.

Ting will also pay the city based on how many customers it serves. Initially, this payment will be a flat fee—but in later years, when Ting's revenue hits certain thresholds, Ting will pay the city a small fraction

of its revenue per user. That mechanism is designed to allow the city to share in some of the upside of the network's success. In other words, the city will receive a bit of entrepreneurial reward based on the entrepreneurial risk the city is taking.

Perhaps most significantly, there is also a mechanism built into the contract that ensures that the two parties are truly sharing risk around the financing of the outside plant infrastructure. In any quarter in which Ting's financial obligations to the city are insufficient to meet the city's debt service, Ting will pay the city 50 percent of the shortfall. In subsequent quarters, if Ting's fees to the city exceed the debt service requirements, Ting will be reimbursed an equivalent amount. This element of the financial relationship made the deal much more attractive to the city because it is a clear demonstration of the fact that its private partner is invested with it.

2.4.2 Case Study: Santa Cruz, CA

In what we believe is the first of many similar projects to come nationwide, the City of Santa Cruz has adopted a variation on the Westminster model (see Section 2.4.1 above). In December 2015, the City Council in Santa Cruz signed an agreement that potentially delivers tremendous value to local residents while sharing risk between the public and private sector.

The Santa Cruz City Council approved an agreement between the city and a local ISP, Cruzio. The city will build, own, and maintain a fiber network; Cruzio, which is a DSL reseller, will migrate many of its DSL customers over to the city's fiber network—and will actively pursue additional new customers to buy broadband services over the fiber. As in the Westminster agreement, Cruzio will pay the city both a per-passing and a per-subscriber fee for its use of the city's fiber.

The benefits of the partnership to the city include not only owning a next-generation network, but also supporting and enabling an important local employer and longtime partner in the community.

Cruzio is a small company, which creates a certain amount of partnership risk for the city. But from the city's standpoint, it is a very attractive partner—a locally based, locally owned company that employs Santa Cruz residents. In fact, the name of the company incorporates the city's name.

For Santa Cruz, identifying a local partner was a key factor in its negotiations. Cruzio's localism was so important to the city that in early 2015, the Council directed city staff to negotiate exclusively with Cruzio.

Cruzio has operated in the city since the early days of the Internet when it was a dial-up ISP. In the broadband era, it migrated to some wireless service and to reselling phone company DSL. The logical next step is for Cruzio to migrate to fiber—which is what the relationship with the city will enable it to do.

The benefits of the partnership to the city include not only owning a next-generation network—and all the positive externalities that come with such a network—but also supporting and enabling an important local employer and longtime partner in the community.

2.4.3 Case Study: Urbana/Champaign, IL

The University of Illinois and the cities of Urbana and Champaign, Illinois, have worked together over many years to expand their broadband infrastructure and connectivity. Those efforts included the development of the Urbana-Champaign Big Broadband (UC2B) network, which is now owned and operated by a not-for-

profit corporation.²⁰ Through a range of different strategies and using local private capital, state funds, and federal funds, UC2B built fiber rings specifically engineered to enable FTTH deployment in the most cost-effective manner. It also built FTTH in neighborhoods with the lowest broadband adoption rates, on the theory that those would be the last places that the private sector would deploy.

UC2B's existing investment and willingness to share future risk attracted a private partner, iTV-3, an Illinois company with FTTH experience. The two partners entered into an agreement that gives iTV-3 access to UC2B fiber on a lease basis at no cost in return for meeting the community's goals of deploying additional FTTH with the following requirements:²¹

- 1 Gigabit service speeds
- 2 Wholesale access on the network to competing companies
- 3 No cherry picking—all neighborhoods have equal opportunity to get services if presales reach 50 percent of residents

Under this model, Champaign/Urbana receives 100 percent of the economic development, competition, and digital inclusion benefits it seeks in return for taking on approximately 30 percent of the partnership's financial risk. The model also means the community can focus on driving demand and adoption, while relying on an experienced private partner to handle customer service, marketing, and operations.

2.4.4 Case Study: Garrett County, MD

The case studies presented above are incredibly promising, but those projects may be more challenging to replicate in rural communities, where the cost of fiber deployment, even in a shared-investment scenario, may still be prohibitive. The shared investment and shared risk strategy, however, is still applicable to rural communities—perhaps using other technologies that secure the benefits of broadband even if they do not result in the kinds of speeds that fiber enables.

The partnership involves cost to the county, but also massive benefit for residents and businesses in the newly served areas.

For example, Garrett County, in far western Maryland, is a relatively remote Appalachian community bordered by West Virginia and Pennsylvania. The county has struggled to get broadband in a number of its remote, mountainous areas. Where broadband is available, it is inadequate DSL service that does not meet the Federal Communications Commission's (FCC) new speed benchmark for broadband service, let alone the requirements for home-based businesses or home schooling. The incumbent provider has not made any plans to expand or upgrade service offerings.

Though mobile broadband is available in some parts of the county, data caps mean that it is not viable for economic or educational activities. (Parents who home-school their children can run through their monthly bandwidth allotment in one day of downloading educational videos.) Beyond these challenges for residents, the county has struggled to attract and retain businesses and teleworkers.

In response, the county has gradually and incrementally built out fiber in some areas, with a focus on connecting specific institutions. And in September 2015, the County Council approved a contract with a private partner to leverage some of that fiber and additional public funding to support the deployment of a fixed-wireless broadband network that will serve up to 3,000 currently unserved homes in the most remote parts of the county. The private partner, Declaration Networks Group (DNG), will also put its own

capital toward the construction of the network, and will apply its technical and operational capabilities to managing the network.

The partnership involves cost to the county, but also massive benefit for residents and businesses in the newly served areas.

The county's outlay of funds will be \$750,000, which will be matched by a grant from the Appalachian Regional Commission (ARC)—and which will be more than matched by DNG's commitment of both capital and operating funds. That relatively modest county contribution (which was then leveraged for the ARC economic development funding) made the economics of this opportunity very attractive to DNG, and secured a broadband buildout for an area that would otherwise not be attractive for private sector broadband investment.

From an economic development perspective, the county's investment represents enormous value for the dollar. This investment will enable residents in 3,000 homes to buy cost-effective broadband service that they cannot access now, and that will make possible telework, home-based businesses, and home schooling. This investment will also enable the county to close the Homework Gap for many students in the county schools who do not currently have broadband in their homes—an increasingly critical lack of service.

As the network is deployed over the next few years, the county will reduce to nearly zero the number of homes in the county that do not have access to some kind of broadband communications options. These options may be modest—not the robust speeds available in metro markets—but they are significantly better than nothing, and a huge economic development achievement from the county's standpoint.

2.5 Additional Strategic Considerations for Public-Private Partnerships

As public sector entities of all sizes and capabilities evaluate potential models for public-private partnerships, it is important to approach each proposal with a healthy dose of common sense. Next-generation fiber deployment, particularly on a large scale to reach all residences and businesses in a community, is a valuable and future-proof investment. But it will not be cheap or easy. If anyone tells you otherwise, or claims that they will deliver enormous benefits at little or no cost or risk, ask for examples of projects where they have

accomplished what they are promising. If it were easy, we would already have seen enormous private investment in FTTH across the country. Communities should be skeptical of rosy projections.

By taking on the risk of fiber construction and finding a partner to light the network and provide service, a locality can increase the potential for a universal fiber buildout to every location.

It is also critical to look for private sector partners that are interested in developing meaningful partnerships to deploy next-generation infrastructure. A significant risk around economic development incentives and other measures to facilitate investment is that private companies will request that localities take on additional costs as a condition of the private investment. For example, a private partner might ask the local government to hire dedicated inspectors and provide free access to real estate—and provide in return only tacit commitments for new services or technological upgrades. The goal of these partnerships is not simply to shift private sector costs to the public sector. If a company is a true partner, it will be willing to make firm commitments to invest in the community in return for the actions the locality takes to lower the cost of deploying infrastructure.

In addition, partners and partnerships will differ in different parts of the country, and with the size of a community. A primary challenge for localities seeking buildout to

every residence and business is that the larger the community, the more difficult it may be for a private partner to deploy its service universally. By taking on the risk of fiber construction and finding a partner to light the network and provide service, a locality can increase the potential for a universal fiber buildout to every location.

Finally, do not underestimate the importance of the political element in tackling these challenges. Political concerns will play a huge role in finding solutions. Community and political leaders must jointly decide to pursue a project of this scope, to solve the problems that may arise along the way, and to bring fiber and its benefits to the community.

3. Legal Issues in a Broadband Public–Private Partnership Project

While all community broadband projects require careful attention to legal issues, this is especially true of broadband public–private partnership projects—particularly complex projects requiring extensive commitments by the public and private sectors over many years.²² In the following sections, we address the key legal issues that arise in each of the three major stages of the development of a public–private partnership deal: confirmation of authority, pre-negotiation project planning, and negotiation of the agreement.

The first two sections are largely geared toward public-sector readers, because the public sector will generally initiate a broadband public–private partnership and address various issues before soliciting private sector involvement. The final section will discuss the allocation of legal risks between the public and private sector parties.

3.1 Confirmation of Authority

As an initial step, a local government contemplating a broadband public–private partnership must determine whether it has authority to participate in such a venture and, if so, whether there are any limitations on its authority or procedural steps it must take to perfect its authority (e.g., hearings, referenda, etc.).

It is critically important to sort out authority issues at the outset, because mistakes can be costly—and are often avoidable. Also, incumbent carriers, threatened with loss of business, have often challenged public communications projects for alleged lack of authority or failure to comply with required procedures.²³

Federal law encourages local governments to provide communications services of all kinds, but it does not affirmatively empower them to do so. For such authority, local governments must look to state and local law.²⁴ Moreover, such authority must exist for each activity involved in a broadband public–private partnership, including authority to provide communications services (if such services are being provided by the public body) and contract with the private sector.²⁵

Most of the state supreme courts have upheld at least some economic development programs that involve direct assistance to the private sector in the form of cash grants, low-interest loans, and tax breaks.

In the remainder of this section, we discuss how state and local laws can affect a local government’s ability to enter into broadband public–private partnership projects.

3.1.1 State Constitutions

State constitutions typically establish political subdivisions—counties, local governments, towns, villages, special districts, and so on—and prescribe the powers the subdivisions can exercise. The scope of authority a state constitution grants a local government varies from state to state, both in terms of overall authority conveyed and the specificity used to describe that authority.²⁶ Some local governments have broad grants of authority under their state constitutions that allow localities to undertake a wide range responsibilities, while other constitutions are more limited. In the latter case, the localities rely on the state legislature to expand the scope of their authority. In addition, the constitutional language alone is not always definitive. Sometimes the language of a state constitution appears to give municipalities broad powers, but the courts interpret the relevant provision narrowly.²⁷ Sometimes the reverse is true. So, it is essential to review the case law surrounding the relevant constitutional provisions.²⁸

For example, state constitutions often contain language restricting the financial

interactions between local governments and the private sector. In fact, more than 40 state constitutions have some language that prevents cities, towns, or counties from investing in or lending or pledging their credit to private businesses or corporations.²⁹ Most of these provisions originated in the 19th century, as a response to a spate of railroad failures that jeopardized the financial stability of hundreds of local governments that had invested in them.³⁰ As originally interpreted, these provisions effectively prohibited the public sector from engaging financially with private companies.

Eventually, however, courts across America began to reinterpret these provisions to allow for public lending and partnerships with the private sector when doing so was in the public interest and served a public purpose.³¹ Many state legislatures have also codified the “public purpose” exception to the constitutional limitations on public–private partnerships,³² and the courts of many states have interpreted that term liberally. In fact, most of the state supreme courts have upheld at least some economic development programs that involve direct assistance to the private sector in the form of cash grants, low-interest loans, and tax breaks.³³

3.1.2 State Statutes

State laws may also affect a local government’s authority to participate in a broadband public–private partnership. Such laws fall into two main categories: laws that address public–private partnerships directly, and laws that address a local government’s authority to provide or facilitate the provision of particular kinds of communications services.

3.1.2.1 State Public–Private Partnership Statutes

In the past few years, more than 30 states have enacted legislation that expressly addresses public–private partnerships in one way or another. Although not all local governments need this authority to proceed with a public–private partnership project, a broad public–private partnership statute is a useful demonstration of clear legislative authority. On the other hand, public–private partnership-enabling statutes vary greatly in scope and breadth. Many are geared toward certain specific types of public–private partnership projects or prescribe a particular process for procuring, financing, and/or operating the network.

Only Arkansas has public–private partnership-enabling legislation that specifically addresses broadband expansion,³⁴ but a few other states have broad public–private partnership-enabling statutes.³⁵ Maryland is among that select group as it recently enacted a public–private partnership-enabling statute that is already being held out as model legislation for a state looking to foster responsible public–private partnerships. Maryland’s statute authorizes public–private partnership projects “for any public infrastructure asset” and provides guidelines for engaging in a public–private partnership project.³⁶

Most public–private partnership statutes are substantially more restrictive. Several states have public–private partnership legislation that provides authority only for particular types of infrastructure projects—normally transportation-related projects.³⁷ Some states have enacted public–private partnership legislation that only provides authority for specific projects such as a single bridge or toll road.³⁸ A few states only provide authority for a limited number of “pilot” or “demonstration” public–private partnerships.

Public–private partnership-enabling statutes may also dictate the public–private partnership procurement process. For example, a few states require that government agencies not engage in performance-based procurements but instead award contracts to the “lowest responsive price.”³⁹ Other statutes allow government entities to prioritize other financial considerations, such as return on equity, rather than price.⁴⁰ A few public–private partnership-enabling statutes prohibit a public entity from accepting unsolicited bids.⁴¹ Others prescribe specific guidelines for bidding procedures and the criteria with which to review bids.

3.1.2.2 State Statutes that Expressly Address Local Government Authority to Engage in Communications Service Activities

Several states have enacted laws that deal explicitly with the authority of local governments to provide or facilitate the provision of communications services. Some of these laws are permissive, others are restrictive. Some are permissive for some services (e.g., dark fiber or wholesale lit fiber) and restrictive for other services (e.g., retail consumer services).

For example, Connecticut expressly authorizes its local governments to provide telecommunications services, cable television services, and broadband services.⁴² Similarly, Illinois expressly authorizes cities and counties to “undertake local broadband projects and the provision of services in connection therewith ... lease infrastructure that it owns or controls ... serve as a retail provider of telecommunications services ... [with] appropriate certification from the Illinois Commerce Commission.”⁴³

In contrast, at least 20 states have laws that hamper the ability of local governments to provide or partner for the provision of communications services.⁴⁴ Typically promoted by incumbent communications service providers, these laws vary from state to state. They range from outright bans on a public entity’s provision of certain services to measures that are supposedly necessary to protect the private sector from unfair competition. As the FCC has recently found, however, such laws can have the practical effect of making public projects unduly time-consuming, burdensome and prohibitively costly.⁴⁵

3.1.3 Home Rule v. Dillon’s Rule

Even after conducting extensive due diligence, a local government may sometimes still not be certain that it has authority to enter into a broadband public–private partnership under state law. In those cases, the outcome will probably be governed by whether the state applies “Home Rule” or “Dillon’s Rule” in interpreting statutory gaps or ambiguities.

Even if a local government has ample state-granted power to participate in a broadband public–private partnership, it may still be constrained by self-imposed limitations.

In general, local governments possessing “Home Rule” authority may undertake any activity not prohibited by the state legislature, and statutory gaps or ambiguities are interpreted in favor of the existence of local government authority. In contrast, local governments subject to “Dillon’s Rule” are deemed to have only those powers that the state has expressly provided them or that are necessarily and reasonably implied by other powers that the state has granted.⁴⁶ Dillon’s Rule also requires that all statutory gaps or ambiguities be interpreted against the existence of the power in question.

Today, approximately 40 states apply some form of Dillon’s Rule, while about 30 states have some form of Home Rule.⁴⁷ Given this overlap, it is obvious that some states apply Dillon’s Rule in some circumstances and Home Rule in other circumstances. For example, some states apply Home Rule to local governments with populations exceeding certain specified amounts and apply Dillon’s Rule to local governments in smaller communities.⁴⁸ Some states apply Home Rule to cities and counties but Dillon’s Rule to publicly-owned utilities.⁴⁹ In short, it is necessary

to carefully examine the specific form of Home Rule, Dillon’s Rule, or both, that a particular state may apply.

3.1.4 Local Restrictions

Even if a local government has ample state-granted power to participate in a broadband public–private partnership, it may still be constrained by self-imposed limitations. Such restrictions may appear in the local government’s charter or ordinances, or they may appear as non-compete clauses in franchises, municipal pole attachment agreements, contracts, or other local undertakings. The limitations may be direct or indirect (e.g., constraints on financing). A full due diligence review of local authority must therefore also include potential restrictions at the local level. When such limitations are identified early on, there may be time to remove them by local action or state legislation, depending on the applicable process in the state in question.

3.2 Pre-Negotiation Project Planning

Once a local government has confirmed its authority and established the zone within which it believes it can operate lawfully, it can turn to exploring the options that it may realistically have within that zone. In this section, we discuss several important legal issues that may affect these options.

3.2.1 Financing

Many communities consider public–private partnership projects desirable primarily because of the financial resources that a private partner can bring into the partnership. To attract a private partner, however, a local government may have to contribute substantial financial resources itself. In this section, focusing on the key legal issues involved, we discuss various funding and financing resources that are available to local governments, to private partners, or to both when working together.

3.2.1.1 Financial Resources Available to Local Governments

Numerous financing options are available to local governments. For example, a local government can finance a project itself, raise capital using various financial instruments, or utilize any number of tools to make itself more attractive to investors. The following section explores some of these concepts, but is not exhaustive in discussing either the possible financing options or potential legal issues.

3.2.1.1.1 Public Sector Project Financing

If state law permits public subsidies of communications networks, local governments can invest surplus revenues from other sources (e.g., municipal utility revenues) in communications networks. Historically, local governments rarely chose this approach due to insufficient funds or political sensitivities, but several communities have utilized this approach more recently. For example, the City of Westminster, Maryland, discussed in Section 2.3.3, and the Town of Leverett, Massachusetts, are using property tax revenues to invest in their broadband projects. The UTOPIA cities have used sales tax revenues (not to finance their projects directly, but as collateral for their bonds).⁵⁰ Similarly, Texas and various other states authorize local governments to impose taxes to help fund economic development initiatives.⁵¹

Both federal law and the laws of a number of states also encourage communities to use tax incentives to attract private sector investments. For example, federal tax law encourages local governments to use Tax Incremental Financing (TIF) to stimulate private investment in geographic areas that require revitalization. In essence, TIF works by committing the anticipated increases in real estate taxes over 20 to 25 years from the “TIF District”—the revitalized area and a substantially larger area surrounding it—to pay for the costs of the revitalization. TIF is based on the expectation that the increased property taxes will more than offset the tax benefits offered as incentives to investments in those areas.⁵²

The New Markets Tax Credit Program is another important tax-driven financing tool used in initiatives such as the OneCommunity project in Northeastern Ohio. The Program provides tax credits of 39 percent of amounts invested in certified Community Development Entities, which, in turn, invest in industrial, community facility, and commercial development in qualifying Low Income Census tracts.⁵³ The program also supports direct loans and equity investments for operating businesses. The program was due to expire, but the Consolidated Appropriations Act of 2016 and the Protecting Americans From Tax Hikes Act of 2015 recently extended it through 2019 at \$3.5 billion annually.

A local government that does not have sufficient funds from other sources to pay for a network itself—and for legal, political, or other reasons is unwilling to tax the public—can use debt financing to help pay for the project. This is usually done through general obligation bonds or revenue bonds.

A general obligation bond is debt for which repayment is guaranteed by the full faith and credit of the local government.⁵⁴ Such bonds are the least risky to investors and therefore bear relatively low interest rates, but they must typically be approved through a public vote. There may also be debt limits on general obligation bonds imposed by state law.⁵⁵

Revenue bonds are paid for from a specific source of revenue. Pledged revenues may come from the operation of the financed project, grants, mortgages on property, or excise or other specified taxes.⁵⁶ Because the risks to investors are greater, interest rates are higher. Taxpayers are not at risk in the event of project failure, so voter approval is generally not required for issuance of a revenue bond, and any debt limits are generally imposed through contract.

Depending on state law, local governments have many tools they can use to finance a project and/or stimulate private investment, including contributing, selling, or leasing real property as part of encouraging a fiber build.

Local governments also sometimes finance communications networks by issuing Certificates of Participation. Such instruments essentially enable investors to purchase a share of the revenues from leasing the facilities developed with project funds.⁵⁷ In order for the Certificate of Participation interest to be tax exempt, the city must be the lessee.⁵⁸ Like revenue bonds, Certificates of Participation are payable only out of project revenues and assets, do not expose taxpayers to risk of project failure, and generally do not require voter approval.

A community may also choose to crowdfund a network by borrowing small amounts from local investors.⁵⁹ Crowdfunding tends to be a slow and labor-intensive process—the monetary values of individual promissory notes are often small, and it can be difficult to reach out to potential participants.⁶⁰ But crowdfunding may have some advantages. First, the promissory notes are not subject to many securities regulations because they are unsecured and privately placed.⁶¹ Second, the community may be able to obtain favorable terms for paying back the notes.⁶²

Depending on state law, local governments have many other tools that they can use to finance a project and/or stimulate private investment, including contributing, selling, or leasing real property as part of encouraging a fiber build.⁶³ Local governments may also be able to stimulate investment through more complicated means, for example by creating revolving loan funds that lend money to qualifying

businesses at lower interest rates, longer terms, and under more flexible conditions (such as allowing less restrictive equity requirements, deferred principal payments, and subordinate collateral positions to other lenders).⁶⁴

In some states, local governments may be able to form councils of governments to undertake economic

development initiatives on their collective behalf. One common joint economic development initiative involves gaining designation of the region as an “economic development district” under federal law. Such councils enable participants to pool their resources to plan and develop programs aimed at economic improvement. Councils of governments may also form Small Business Administration Section 53 Certified Development Corporations. These corporations are authorized to make long-term financing available through the Small Business Administration’s 504 loan program.⁶⁵

Finally, there are state and federal funds that support and encourage broadband deployment. Fourteen states have launched grant programs supporting broadband buildouts.⁶⁶ There are also several significant sources of federal funds available to support broadband services and facilities. For example, the FCC distributes funds to rural broadband service providers through its Connect America Fund (CAF),⁶⁷ to providers of broadband services for health care networks through the Healthcare Connect Fund,⁶⁸ and to providers of broadband services or facilities to schools and libraries through the E-Rate program.⁶⁹ These programs have annual spending caps ranging from several hundred thousand dollars to several billion dollars.

3.2.1.1.2 Private Sector Project Financing

As a general rule, the more a local government contributes to the financing of a project, the greater its influence will be in the management of the project. To some communities, however, public financing options are not attractive, either because they require more public involvement than the local government wishes to provide or because they believe that the private sector is better suited to acquiring and managing project financing.

A full discussion of private sector project financing is well beyond the scope of this article. For present purposes, suffice it to say that private partners have a wide range of options to acquire financing for the project directly or indirectly, including through equity, debt, contributions of equipment and facilities, in-kind services, third-party co-builds, and fiber-for-pole attachment deals.

By depending primarily on private sector capital to finance a project, local governments can avoid adding to their direct long-term debt obligations. This does not mean, however, that the users of the system may not bear higher costs, or that the public sector will avoid additional budgetary restrictions. One way or another, the local government will bear a share of the costs of the project. Private financing does, however, shift much of the initial burden of financing, building, and maintenance costs to the private sector.

Federal and state laws recognize local government’s police power and regulatory authority to manage the use and placement of facilities within the public rights-of-way.

3.2.2 Access to the Public Rights-of-Way

Every broadband public–private partnership must have access to the public rights-of-way (PROW) in order to install fiber along poles or in underground conduit. Federal and state laws recognize local government’s police power and regulatory authority to manage the use and placement of facilities within the PROW and to obtain fair and reasonable compensation from users. Federal and most state laws also require that local governments provide access to their PROW on a non-discriminatory and competitively neutral basis.⁷⁰

A frequent complaint among private sector providers is that obtaining access to the PROW is a long, unnecessarily cumbersome process in many cities. Given the critical importance of rapid buildout to the developer of a fiber broadband project, efficient PROW access can be a central issue for a broadband project. For example,

in deciding where to deploy its fiber networks, Google Fiber has treated timing of access to the PROW as a significant factor in distinguishing among potential host cities. Google’s guidance to cities on these matters is summarized in its Google Fiber City Checklist.⁷¹

In general, local governments may consider various steps to streamline the PROW access process. They can, among other things, develop accelerated timetables for permitting, pre-approve specific techniques (e.g., micro-trenching), and make dedicated inspectors available. Local governments can also consider reducing fees associated with PROW access.⁷²

In considering whether to adopt streamlined processes or lower fees for a particular broadband network developer, a local government should be mindful of the potential precedential implications for other current and future occupants of the PROW. While some degree of discrimination is appropriate when dealing with entities that are not similarly situated, drawing distinctions may often be difficult and controversial. So, local governments must be deliberate in framing the PROW benefits that it can offer as part of a public–private partnership deal.

3.2.3 Access to Infrastructure

Existing infrastructure and facilities are among the most important assets that local governments may be able to bring to a broadband public–private partnership.⁷³ Facilities may include fiber, poles, ducts, conduits, sewers, streetlights, towers, rooftops, and collocation space. Local government-owned land can also be an important and valuable asset to make available. Not all local governments will have the same assets to bring to the table, but there will usually be at least some assets available for inclusion in the broadband public–

private partnership. An inventory early on will identify the possible assets and will help when a local government is considering how to leverage those assets.

Local governments possess the proprietary power to control access to the physical infrastructure or facilities they own.

Local governments possess the proprietary power to control access to the physical infrastructure or facilities they own. This power is distinct from the controlling access to the PROW in that it is based on the local government’s ownership of property, not its police or regulatory powers. Access to infrastructure is also subject to different rules than those governing access to the PROW. Whereas federal and state laws require local governments to provide access to the PROW on nondiscriminatory and competitively neutral terms and conditions, such laws generally do not apply to local government-owned infrastructure or facilities.^{74,75}

For example, an entity that seeks pole attachments must obtain both (1) permission to occupy the PROW, which it must obtain from the local or state government, depending on the state at issue; and (2) permission to attach its cables and other facilities to the poles in question, which it must obtain from the pole owner. If the pole owner is an investor-owned utility, the rights of the entity seeking pole attachments, if any,⁷⁶ will be governed by federal or state law.⁷⁷ Local government pole owners are generally exempt from federal and most state pole attachment rules and are free to establish their own rules and standards, consistent with applicable state laws on nondiscriminatory treatment. The proprietary nature of operating a utility and managing attachment rights may permit local governments significant flexibility in attachment negotiations.

3.2.4 Other Access Issues

Aside from PROW and infrastructure access issues, there are many other kinds of access and related issues that can arise in the context of a public–private broadband partnership. These include access to towers, sides and rooftops of buildings, private easements, distributed antenna system (DAS)/small cell sites, wetlands,

historical or other protected properties, environmental issues, and much more. Each is governed by its own history, rules, administrative precedent, case law, and politics. It is therefore important for the public and private partners to have access to expertise in all of these areas. A detailed discussion of these issues is beyond the scope of this paper.

3.2.5 Regulatory Burdens and Benefits

When considering the types of services that the public–private partnership will offer and who will be responsible for ensuring compliance with applicable legal requirements, it is important to consider how those activities will be regulated at the federal and state levels. This includes not only the regulatory requirements with which a service provider must comply, but also the benefits for which the provider may qualify.

The way that federal and state requirements will apply to a broadband public–private partnership will depend on multiple factors, including the nature of the services provided, the manner in which they are offered, and current developments in the law.⁷⁸ For example, the FCC recently reclassified mass-market residential broadband Internet access service as a “telecommunications service” that is subject to some of the FCC’s telecommunications common carrier requirements but not others.⁷⁹ If a broadband public–private partnership bundles this service with cable, telephone, and other services (some of which are more extensively regulated than broadband service, even with the FCC’s recent reclassification of mass-market broadband service as a telecommunications service), it will be subject to more extensive regulation. That regulation may include additional reporting requirements, FCC user fees, required testing, and public information, as well as a complicated negotiating scheme for creating retransmission deals with broadcasters.⁸⁰

3.2.6 Organizational Issues

In addition to considering how the broadband public–private partnership itself will be structured, it is important for a local government to consider how it will organize and run its side of the partnership—including whether to use an existing branch of government to oversee the project; whether to create a new division, commission, authority, non-profit, or cooperative; and how to involve the key stakeholders, including the school system and the municipal utility (if the local government has one).

How a public entity chooses to organize itself may be based on political, legal, and practical considerations. For example, a local government may simply not have the authority to create a new agency, and will thus have to operate within its existing structure. A public entity may also choose its organizational structure based on governance issues, particularly if the project will involve multiple public entities. All parties benefit when there is a clear chain of command and decision-making process in place, regardless of the organization structure.

3.2.7 Other Considerations

There will, of course, be many other issues that merit careful consideration, especially because no two public–private partnership projects are the same. Given the nature of public–private partnership projects and the possibility of using tax-advantaged municipal or state bonds to help finance the project, it is particularly important to understand the potential tax implications of the public–private partnership models under consideration. For example, under the so-called “private business use” exception, the federal tax advantages of municipal bonds can be lost if the private entity benefits in ways that exceed certain limits set forth in the tax code.⁸¹ Considerations such as these may also be appropriate during the contracting stage.

3.3 Negotiating the Agreement

Public-private broadband partnership projects are complicated, as they necessarily involve at least two parties that come from different worlds and have different missions, goals, skill sets, and legal and political obligations.

Once a local government knows the extent of its ability to participate in a public-private partnership and has a sense of the type of public-private partnership that best suits its needs and purposes, it can solicit a private partner. This is typically done through a Request for Qualifications (RFQ), a Request for Information (RFI), or a Request for Proposals (RFP), collectively “Request Process.” Although some localities may be restricted by procurement laws, this Request Process is critical for local governments as it allows them to structure their request to vet the private-sector applicant’s credentials and business plans, and, if enough interest exists, to let the applicants compete with each other for the best response. Even after comparing the responses, the local government may want to negotiate with several parties simultaneously. This allows local governments to have maximum leverage during the negotiating stage. The following sections apply whether the locality is negotiating with one or several potential private partners.

From a legal standpoint, all public broadband initiatives are complicated, as they must deal with numerous significant legal issues of the kind discussed above. Public-private broadband partnership projects are far more complicated, as they necessarily involve at least two parties that come from different worlds and have different missions, goals, skill sets, and legal and political obligations.

Parties to even relatively straightforward public-private broadband partnerships must find mutually acceptable ways to reach compromises on scores of significant issues. Major projects such as the Kentucky statewide fiber project are particularly complex, as they involve huge sums of money, multiple public and private entities, hundreds of issues, and commitments that will bind the parties for decades.

No matter how large or small a broadband public-private partnership may be, the parties will have to negotiate and allocate risks, responsibilities, and rewards. In the remainder of this paper, we will focus on the key legal issues in each of these areas.

3.3.1 Allocation of Risk

As major long-term capital projects, public-private broadband partnerships will inevitably encounter delays, disruptions, or other challenges at some point during the life of the project. Such problems can result from many causes, including construction delays, natural disasters, hidden environmental hazards, cyberattacks, terrorism, vandalism, strikes, bankruptcies, insufficient demand, changes of law, and many others. Allocating the risks of these potential problems is probably the most difficult part of negotiating a public-private broadband partnership agreement. By way of illustration, we will analyze how risks were allocated in the three public-private partnership models presented in the first part of this paper.

3.3.1.1 Model 1: Private Investment, Public Facilitation

Under this model, described in Section 2.2, the local government removes barriers to deployment to encourage a private sector provider. Cities can seek to become fiber-ready, building on materials published by Google Fiber, the authors here, and others. This model generally involves the least amount of negotiating.

Google Fiber mitigated its risks, in part, by making clear that its buildout would be “based upon demand by [c]ity residents and availability of necessary infrastructure”—which Google ultimately determined through

its “Fiberhood” qualifying process. Google also reserved the right to terminate the project for its own convenience at any time within two years of commencement of construction.⁸²

3.3.1.2 Model 2: Private Execution, Public Funding

Although the “concession model” is only beginning to be applied to broadband public–private partnerships, many bridges, roads, and other infrastructure projects have been constructed under this model, as it is the most frequently used model for major infrastructure projects in the U.S.⁸³ No two concession-model public–private partnership projects are the same, but there are a number of the key features that will be present in some form in most of these projects.

Under the concession model, a public entity grants a private company (the “Concessionaire”) the right to finance, design, construct, manage, and operate a facility for a certain period of time in exchange for monthly payments (“availability payments”) for making services available at specified sites. The project may be a new-build project (“greenfield”), may involve upgrading existing areas (“brownfield”), or may include some of both. The public entity acquires ownership of the project assets on acceptance of delivery and retains ownership of the assets throughout the project period.

In negotiating a concession public–private partnership deal, the private partner proposes a starting availability payment based on a set of “working assumptions.” For example, working assumptions may include the percentage of underground versus aerial fiber to be deployed, projected pole attachment fees, financing costs, construction costs, and operating and maintenance costs. If it later turns out that any of the working assumptions were incorrect—upward or downward—the parties will deal with them in the manner set forth in the concession agreement and related documents.

A critical feature of the negotiations under the concession model is development of an extensive list of “supervening events”—events that change the assumed conditions—and a set of rules as to how the risks of these events will be allocated among the parties. Supervening events can include just about anything that might go wrong—including squirrels chewing through fiber optic cables, ice storms, and much more—during the multi-decade life of the project. Some of these events may have a low probability of occurring but a high impact if they do occur; others may have the reverse probability/impact profile or a different one.

Ideally, risks would be allocated primarily to the party best able to avoid or mitigate the supervening event, and if neither party can do so effectively, the risks would be shared in some fashion.

For example, the parties may decide that if a particular kind of supervening event occurs, the deadlines will be suspended until the problem can be remedied. Alternatively, the parties may agree that the private party will remedy the problem, but the public entity will continue to make availability payments while the remedy is being implemented. This is all a matter of negotiation. In one particularly notable example involving a public–private partnership for a major highway, the contracting parties did not create a mechanism for handling permitting delays (a supervening event) and the public sector entity continued to make its required monthly payment despite the fact that no construction was occurring due to permitting delays; this oversight cost the public sector entity millions of dollars.⁸⁴

During the negotiations, the parties will negotiate vigorously over the classification and treatment of various kinds of supervening events.⁸⁵ Where a particular kind of event ends up in this scheme will determine how the parties deal with the event, should it ever occur. For some events, one of the parties may be primarily responsible for the costs addressing the condition. In some cases, the other

party may bear the primary responsibility. In yet other cases, the parties may share or cap the costs in some fashion. Furthermore, depending on how long a disruption lasts, it may shift from one category of supervening event to another.

Ideally, risks would be allocated primarily to the party best able to avoid or mitigate the supervening event, and if neither party can do so effectively, the risks would be shared in some fashion. In practice, everything is subject to negotiation and trade-offs.

3.3.1.3 Model 3: Shared Investment and Risk

In this model, as illustrated in Section 2.4, two parties negotiate the allocation of risks primarily on the basis of who is best able to manage and mitigate the risk. There is no single formula to create a public–private partnership that shares the investment and risk. Rather, this is a matter of economic realities and political goals that the parties negotiate and reflect in their contracts. Section 2.4.3 describes the arrangement between UC2B and iTV3. Under the UC2B agreement, iTV3 (as network operator) acquired access to substantial existing assets and assumed most of the risks associated with future developments. In the Westminster agreement with Ting Fiber, discussed in Section 2.4.1, the City assumed all risks associated with the design, construction, and maintenance of the fiber system, and Ting assumed responsibility for the risks associated with its provision of services. Under their revenue-sharing arrangement, the parties effectively shared the risks of unexpectedly low demand. A Force Majeure clause protected both parties from catastrophic risks.

3.3.2 Allocation of Responsibilities

Allocating responsibilities in a broadband public–private partnership project is generally much more simple and straightforward than allocating risks, because both parties largely know what responsibilities they are taking on from the outset of the deal. When a public entity puts out an RFP, it is generally for a specific set of responsibilities—so both parties are generally aware of their responsibilities. The following Brookings Institution⁸⁶ chart depicts four models of responsibility sharing.

DIFFERENT LEVELS OF PRIVATE SECTOR ENGAGEMENT IN PPP CONTRACTS

	Identify Infrastructure Need	Propose Solution	Project Design	Project Financing	Construction	Operation / Maintenance	Ownership
Bid / Build	Public Sector				Private Sector	Public Sector	
Design / Build	Public Sector	Private Sector	Public Sector	Private Sector	Public Sector		
Design / Build / Finance	Public Sector	Private Sector				Public Sector	
Design / Build / Finance Operate / Maintain	Public Sector	Private Sector					Public Sector

Figure 3: Brookings Institution Model of Responsibility Sharing

One of the main advantages of a public–private partnership is the expertise that the private partner brings to the table. The private partner may have experience designing and constructing a network and/or delivering service—experience that the public entity either lacks or prefers not to use for the project at

issue. Therefore, the public entity may decide that the private sector party is in the better position to handle multiple responsibilities under the deal.

Another incentive for bundling responsibilities is that it provides the private entity an incentive to capture cost savings across the various phases of the contract.⁸⁷ For example, a private entity might choose to use more expensive, higher quality fiber, knowing it is harder for animals to chew through that fiber jacket and, thus, that the fiber will minimize maintenance costs down the road.

3.3.3 Allocation of Rewards

A successful broadband public–private partnership project will produce benefits for both the public and private parties. The benefits may be what we consider traditional benefits. For example, a benefit can be in the form of revenue the network produces from user fees. If the network is producing traditional monetary benefits, the parties may agree to a mechanism for sharing the rewards/revenue.

Benefits may also take the form of cost savings. If the public entity is also a system user, it may benefit by obtaining higher capacity broadband at lower costs from the public–private partnership than it had previously been able to obtain from the prior service provider.

Finally, benefits may be non-traditional. For a public entity, the primary goal of the network may not be to produce significant revenue or induce material cost savings. A growing number of local governments are coming to see advanced broadband networks as essential infrastructure for the 21st century, infrastructure that is capable of driving and supporting simultaneous progress in just about every area of significance to their communities. This includes economic development, education, health care, environmental protection, energy, transportation, government services, digital equity, and much more. While such benefits may be difficult to measure in monetary terms—as are the monetary benefits of roads, sidewalks, electricity, sewers, and water—they are real nonetheless. For many communities, these benefits are likely to be the primary reasons for entering into a public–private partnership.

Attachment A: Key Strategy Considerations for Building a Partnership

1. Determine your priorities

- a. Competition?
- b. Enhanced service?
- c. Equity and service to all?
- d. Public control over infrastructure?
- e. Risk avoidance?

2. Consider Model 1: private investment, public facilitation

- a. Make available public assets like fiber and conduit
- b. Share geographic information systems (GIS) data
- c. Streamline permitting and inspection processes
- d. Offer economic development incentives to attract private broadband investment

3. Consider Model 2: private execution, public funding

- a. Identify revenue streams that can be directed to a private partner
- b. Issue RFP for private turnkey execution

4. Consider Model 3: shared investment and risk

- a. Evaluate using assets to attract private investment
- b. Evaluate funding new assets to attract private investment
- c. Evaluate building new fiber assets to businesses and/or homes for leasing to private ISPs

Attachment B: Key Legal Considerations for Localities Looking to Build a Broadband Partnership

1. Review authority issues

- a. Are localities authorized by state law to enter into public–private partnerships?
- b. Are there any state restrictions on the ability of localities to provide or partner for the provision of communications services of any kind?
- c. Are there procedural requirements (e.g., hearings, referenda, etc.) with which the locality must comply?
- d. In the absence of clear state laws, how much discretion do localities have to determine their own authority?
- e. Do local charters, ordinances, franchises, or other agreements limit the activities a locality can undertake?

2. Understand the legal tools and instruments that could shape the partnership

- a. Financing – What types of financing are available and what are the tax, political, and other consequences of using them?
- b. Access issues – Projects will usually benefit from streamlined access to the public rights-of-way and facilities, but non-discrimination requirements may introduce complications. What will be the overall net impact of the locality’s choices concerning access to infrastructure?
- c. Regulatory considerations – Different business models may be regulated in significantly different ways. To what extent will regulatory considerations affect the locality’s choice of a business model?
- d. Organizational issues – In order to achieve its business, governance, tax, and other goals to the maximum extent possible, what kind of legal structure should the locality select for its entity that will participate in the public–private partnership?

3. Negotiate the agreement

- a. Understand your tolerance for risk and the responsibilities you are willing to undertake
- b. Rank the risks, rewards, and responsibilities – which are negotiable vs. non-negotiable?
- c. Negotiate for the best possible outcome

Endnotes

- 1 Disclosure: CTC Technology & Energy and Baller Herbst Stokes & Lide have worked together on most of the model projects discussed throughout this paper.
- 2 Ting, <https://ting.com/>
- 3 “MetroNet plans to expand current fiber optic system,” The Paper of Montgomery County Online, Mar. 18, 2014, <http://goo.gl/5eHuJt>
- 4 “Gigabit Communities: Technical Strategies for Facilitating Public or Private Broadband Construction in Your Community,” CTC Technology & Energy, Jan. 2014, p. 6–12, <http://www.ctcnet.us/gigabit/>
- 5 For more discussion of “dig once” policies and related collaborative strategies, see “Gigabit Communities.”
- 6 “Transcript: Community Broadband Bits Episode 139,” Institute for Local Self-Reliance, Feb. 26, 2015, <http://goo.gl/pFzN6k>
- 7 Id.
- 8 Id.
- 9 “Governor Doug Ducey Announces Major Apple Expansion in Arizona,” News Release, Office of the Arizona Governor, Feb. 2, 2015, <http://goo.gl/gxtgoC>
- 10 “Gigabit Communities,” p. 13–16.
- 11 Id., p. 14.
- 12 “Gigabit Communities.”
- 13 “Financial Structuring of Public–Private Partnerships (P3s),” U.S. Department of Transportation, 2013, <http://goo.gl/gCJIZK>
- 14 “Macquarie Capital,” Macquarie Group, <http://goo.gl/uvUEjv>
- 15 “About UTOPIA,” UTOPIA, <http://goo.gl/9GSqtx>
- 16 Benjamin Wood, “UTOPIA board votes to move forward with Macquarie deal,” Desert News, June 30, 2014, <http://goo.gl/CMfKH7>
- 17 See, for example: “Community Broadband Creates Public Savings,” Fact Sheet, Institute for Local Self-Reliance, <https://goo.gl/kCEZeC>
- 18 Case study is based in part on a presentation by Dr. Robert Wack, President, Westminster (Maryland) City Council, during a webinar hosted by the Fiber to the Home Council and facilitated by CTC Technology & Energy. See: <http://goo.gl/x82Ro7> (password required). See also: Robert Wack, “The Westminster P3 Model,” Broadband Communities Magazine (Nov./Dec. 2015), <http://goo.gl/op1XpH>
- 19 “The Project,” Inter-County Broadband Network, <http://goo.gl/GjBC26>
- 20 “About,” Urbana-Champaign Big Broadband Not-for-Profit, <http://uc2b.net/about/>
- 21 “Urbana-Champaign Big Broadband Not-for-Profit (UC2B NFP) to Hold Expansion News Conferences,” News Release, UC2B NFP, May 29, 2014, <http://goo.gl/twLRPO>
- 22 Disclaimer: This paper does not provide legal advice and should not be interpreted or used as legal advice. For legal advice, readers should consult qualified legal counsel.
- 23 See, e.g., *City of Bristol, VA, v. Earley*, 145 F.Supp.2d 741 (W.D. Va. 2001); *BellSouth Telecommunications, Inc. v. City of Lafayette*, 919 So.2d 844 (3d Cir. 2006); *Cequel III Communications I, LLC v. Local Agency Formation Com. of Nevada County*, 57 Cal.Rptr 3d 32, 149 Cal.App.4th 310 (Cal.App., Third Dist. 2007).
- 24 *Nixon v. Missouri Municipal League*, 541 U.S. 125, 133-34 (2004).

25 For example, in *City of Bristol, VA v. Earley*, 145 F.Supp.2d 741, 745 (W.D. Va. 2001), the court held that the City has authority to provide telecommunications services, and in *Marcus Cable Associates, L.L.C. v. City of Bristol*, 237 F.Supp.2d 675, 678-79 (W.D.VA 2002), the same court held that the City does not have authority to provide cable television service. According to the court, the critical difference was that Virginia's statute authorizing localities to establish "public utilities" applied to telecommunications services but not to cable television.

26 For example, the Ohio constitution grants local governments broad general authority "to exercise all powers of local self-government" but it also goes on to grant local governments specific authority to purchase, operate, maintain, and sell utilities and to issue bonds to finance them. See Ohio Constitution Art. XVIII §§ 3, 6 (1912).

The California constitution gives charter cities primacy in addressing "municipal affairs" or "municipal functions," even in the face of restrictive state measures on the precise matter in issue. In matters "of state concern," however, charter cities cannot act in a manner that is inconsistent with any state requirement. Furthermore, the California Constitution empowers both charter cities and non-charter cities to establish public utilities, including those that provide for "means of communication." See California Constitution Art. XI §9.

In contrast, Arizona's constitution reserves very little authority for municipalities explicitly. The constitution authorizes cities with more than 3,500 citizens to create a charter. Otherwise, most provisions related to cities/municipalities are restrictive. The Arizona Constitution limits the amount of debt a municipality can assume to six percent of the municipality's "taxable property" and requires that all franchises be approved by electors. See Arizona Constitution Art. XIII §§ 2, 4.

27 For example, Washington State's constitution sets forth the authority of cities to "make and enforce within [their] limits all such local police, sanitary and other regulations as are not in conflict with general laws." (Washington Constitution Art. XI § 11). The Constitution also gives certain classes of cities the power to create a city charter, ostensibly giving those cities Home Rule authority. (Id. at Art. XI § 10). But the Washington courts have blurred the Home Rule distinctions for cities finding "the general rule is that [municipal corporations' powers] are limited to those powers expressly granted by statute, those powers necessarily or fairly implied in or incident to powers expressly granted, and those powers essential to the declared purposes and objects of the corporation ... If there is a doubt as to whether the power is granted, it must be denied." (*Port of Seattle v. Wash. Utils. & Transp. Comm'n*, 92 Wn.2d 789, 794-95, 597 P.2d 383 (1979)). Recent court decisions have extended this decision to cities in various circumstances regardless of whether they have a charter calling into question cities' Home Rule authority.

28 See also the discussion of Home Rule v. Dillon's Rule in Section 3.1.3.

29 See, e.g., Idaho Constitution Art. VIII § 4 ("No county, city, town, township, board of education, or school district, or other subdivision, shall lend, or pledge, the credit of faith thereof directly or indirectly, in any manner, to or in aid of any individual, association, or corporation, for any amount or for any purpose whatever or become responsible for any debt, contract, or liability of any individual, association or corporation in or out of this state.").

30 See, e.g., *Frank v. City of Cody*, 572 P.2d 1106, 1112 (Wyo. 1977) (quoting the Wyoming Constitution where it stated that neither state or political subdivisions "shall loan or give its credit or make donations to or in aid of any individual, association, or corporation, except for the necessary support of the poor...").

31 For example, the Washington State Supreme Court determined that there are two situations in which a public entity could lend to or partner with the private sector: first, if the public expenditure carries out a fundamental governmental purpose; or second, if the local government receives valuable consideration in exchange for the expenditure. (*CLEAN v. State*, 928 P.2d 1054 (1996)). In either situation, the partnership is permitted even if the private party will incidentally benefit as a result. (*King County v. Taxpayers of King County*, 949 P.2d 1260 (1997)).

32 See, e.g., Wash. Rev. Code. § 35.21.730 (1998) (allowing cities to create public corporations that can work with the private sector for a public purpose).

33 See Richard Briffault, "Foreword: The Disfavored Constitution: State Fiscal Limits and State Constitutional Law," 34 Rutgers L.J. 907, 913 (2003). See also *Maready v. City of Winston-Salem*, 467 S.E.2d 615, 627 n.1 (N.C. 1996) (noting that "courts in forty-six states in addition to North Carolina have upheld the constitutionality of governmental expenditures and related assistance for economic development incentives").

34 Ark. Stat. § 25-4-102 (authorizing the state's Department of Information Systems to enter in public-private partnerships for information technology services including broadband).

35 States with broad mandates include:

Florida: Fla. Stat. Ann. §287.05712 authorizes public-private partnerships for projects not limited to those listed in the statute;

Maryland: Md. Code Regs. §10A-103 to 402 authorizes public-private partnerships for any public infrastructure asset;

Texas: Tex. Government Code Ann. § 271.181 to 271.199 authorizes design-build public-private partnerships for a broad set of civil works projects;

Indiana: Ind. Code Ann. §§ 5-23-1-1 authorizes public-private partnerships for public facility projects but defines a public facility as a "facility located on, or to be located on, real property owned or leased by a governmental body and upon which a public service is or may be provided";

North Dakota: N.D. Cent. Code §§ 48-02.1-01 et seq. authorizes public–private partnerships for a fee-based facility;
California: Cal. Gov. Code §§ 5956 to 5956.10 authorizes public–private partnerships for fee-producing infrastructure projects and specifically lists the type of projects allowed.

36 Md. Code. Regs §10A-103-402.

37 Edward Fishman, “Major Legal Issues for Highway Public–Private Partnerships” at 26, Legal Research Digest (Jan. 2009), <http://goo.gl/UTL5CJ>

38 See Alaska Stat. §§ 1905 (authorizing the Knik Arm Bridge and Toll Authority to use a public–private partnership to finance, design, construct, operate, and maintain a bridge in Anchorage). See, e.g., Cal. Stat. & Hwy. Code § 143(A), Cal. Gov’t Code § 5956; Ind. Code § 8-15.5; Mo. Rev. Stat. §§ 238:300-238:367; N.C. Gen. Stat. §§ 136-89.180-136.89.197.

39 See, e.g., Florida Statutes Annotated § 287.057(1)(a)1.a.4 (requiring that contracts “be awarded to the responsible and responsive vendor who submits the lowest responsive bid.”).

40 See, e.g., Colo. Rev. Stat. §§ 43-1-1201-1209, 43-4-801-812; Or. Rev. State. §§ 383.001-383.019; Utah Code Ann. §§ 63-560502.5, 72-6-118, 72-6-201-206.

41 See, e.g., Georgia Code Ann. §§32-2-78, 80 (requiring the DOT to solicit proposals); Ind. Code Ann. §§5-23-1-1 to 5-23-7-2.

42 Conn. Gen. Stat. Ann. §§ 7213, 7-233ii, 7536.

43 20 Illinois Compiled Statutes 661/35.

44 “State Restrictions on Community Broadband Services or Other Public Communications Initiatives,” Baller Herbst Stokes & Lide (updated June 1, 2014), <http://goo.gl/yzJTQW>

45 Many of these statutes are now of questionable legality. On March 12, 2015, the FCC issued an order striking down the barriers to public broadband investment erected by the state legislatures of North Carolina and Tennessee. In the Matter of City, of Wilson, North Carolina Petition for Preemption ..., 30 FCC Rcd. 2408, 2015 WL 1120113 (F.C.C.), petition for review pending, State of Tennessee v. FCC, Nos. 15-3291 and 153555 (6th Cir.). Relying on its authority under Section 706 of the Telecommunications Act, as amended, 47 U.S.C. 1302, the FCC found that these restrictions violated federal law by preventing residents and businesses in the affected areas from obtaining reasonable and timely access to advanced telecommunication capabilities. While the decision applied only to the laws of North Carolina and Tennessee, the FCC expressly invited communities facing barriers in other states to seek similar relief from the Commission.

Disclosure: Baller Herbst Stokes & Lide served as lead counsel for Wilson and Chattanooga before the FCC and is currently lead counsel for Wilson and of counsel for Chattanooga in the petition for review before the Sixth Circuit.

46 See Merriam v. Moody’s Ex’rs, 25 Iowa 163, 170 (1868). In his treatise, Dillon, Commentaries on the Law of Municipal Corporations, (5th ed. 1911), Judge Dillon described the rule as follows: “[A] municipal corporation possesses and can exercise the following powers and no others: First, those granted in express words; second, those necessarily or fairly implied in or incident to the powers expressly granted; third, those essential to the accomplishment of the declared objects and purposes of the corporation, -- not simply convenient, but indispensable.” Id. at § 237.

47 Adam Coester, “Dillon’s Rule or Not?,” National Association of Counties, Jan. 2004 2(1) (providing a survey of Dillon’s Rule and Home Rule states).

48 See, e.g., Illinois Constitution Art. VII §6(a)(“...any municipality which has a population of more than 25,000 are home rule units”).

49 Washington State Office of the Attorney General, “Authority of Cities, Towns, and Counties to Provide Telecommunications Services,” AGO 2003 No. 11 (Dec. 2003), <http://goo.gl/Bwbzae> (“With respect to all municipal corporations, the general rule is that they are limited to those powers expressly granted by statute, those powers necessarily or fairly implied in or incident to powers expressly granted, and those powers essential to the declared purposes and objects of the corporation. Port of Seattle v. Wash. Utils. & Transp. Comm’n, 92 Wn.2d 789, 794-95, 597 P.2d 383 (1979) ... [T]his general rule does not apply to cities and counties that have adopted charters pursuant to the Washington Constitution (Const. art. XI, §§ 4, 10) or to cities operating under the optional municipal code (‘code cities’) ... These municipalities, often described as having ‘home rule’ powers, do not need express or implied statutory authority to enact local legislation.”).

50 “Fiber Coming to 11 Utah Cities” Government Technology (Feb. 2014), <http://goo.gl/VcdX1b>

51 Texas Municipal League, “Texas Municipal League Economic Development Handbook,” at 2-7 (Jan. 2015), <http://goo.gl/WmA3Qv>

52 “Economic Development Authority Handbook,” Minnesota Economic Development Foundation, et. al., p. 20-22 (Oct. 2011); “Tax Increment Financing Program,” City of Chicago, <http://goo.gl/UYx2nR>

53 Tony Q. Smith, “TIF and New Markets Tax Credits: Economic Development Finance Tools with Applicability for Broadband,” S.B. Friedman & Co. (Nov. 2013), <http://goo.gl/f6MsFW>

54 “General Obligation or GO Bond,” Municipal Securities Rulemaking Board, <http://goo.gl/UcK2HP>

55 See, e.g., Missouri Constitution Art. VI §26(b)(“Any county, city, incorporated town or village or other political corporation or subdivision of the state, by vote of the qualified electors thereof voting thereon, may become indebted in an amount not to exceed five percent of the value of taxable tangible property therein...”).

56 “Revenue Bond,” Glossary, Municipal Securities Rulemaking Board, <http://goo.gl/TY6mdD>

57 “Introduction to Tax-Exempt Bonds,” Internal Revenue Service, p. 12, <http://goo.gl/bkzDy6>

58 Id.

59 This is a developing area of law so local governments should consider applicable federal and state securities laws.

60 “Financing Fiber Networks,” Broadband Communities Magazine, p. 51 (May/June 2015), <http://goo.gl/h2eNQ>

61 Id.

62 Id.

63 “Economic Development Authority Handbook,” Minnesota Economic Development Foundation, et. al., p. 23 (Oct. 2011), <http://goo.gl/b15baH>

64 Id. at 24.

65 Id. at 170.

66 “Financing Fiber Networks,” Broadband Communities Magazine, p. 52 (May/June 2015).

67 In addition to its \$100 million set-aside for a Rural Broadband Experiments program, the FCC distributes up to \$2 billion in annual CAF funding. See “Connect America Fund Offers Carriers Nearly \$1.7 Billion to Expand Broadband to Over 8.5 Million Rural Americans,” Press Release, FCC, <https://goo.gl/9VR9ZD>

68 The Healthcare Connect Fund has an annual funding cap of \$400 million. Individual health care providers or members of a consortium can receive up to a 65 percent discount for eligible expenses related to broadband connectivity, including equipment. See “Rural Health Care: Funding Information,” Universal Service Administrative Company, <http://goo.gl/eb7oxU>

69 The E-Rate Program is a federal subsidy program that covers 20 percent to 90 percent of the cost of telecommunications service, Internet access, and internal connections for schools and libraries. The FCC recently raised the E-Rate spending cap from \$2.4 billion to \$3.9 billion annually and added \$1 billion of support for wireless services during the 2015 and 2016 funding years. See “Summary of E-Rate Modernization Order,” FCC, <https://goo.gl/HGWbSF>. The FCC is also phasing out support for traditional telecommunications services and replacing them with support for broadband infrastructure and services. See <https://goo.gl/137adP>

70 47 U.S.C. § 253.

71 Google Fiber City Checklist (updated Feb. 2014), <https://goo.gl/Hgxv47> ; see also “Gigabit Communities.”

72 See also Heather Burnett Gold, More Fiber, Less Waiting (Nov. 2015), <https://goo.gl/vkBm99> (describing the “One-Touch” pole attachment process; see also Next Century Cities, “One Touch” Make-Ready Policies: The “Dig Once” of Pole Attachments (Jan. 6, 2016), <http://goo.gl/EGe8q3>

73 For example, in the UC2B project (discussed in Section 2.3.1), UC2B used its fiber infrastructure to attract iTV-3, a private company that was willing to continue to expand the network in the manner that UC2B desired. Similarly, the City of Westminster, Maryland, (discussed in Section 2.3.3) was able to attract a private partner, Ting, by offering to build, own, and maintain its fiber—enabling Ting, in turn, to light the fiber, operate the network, and offer services to the public.

74 In Section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, 126 Stat. 156 (2012), Congress directed the FCC to address certain problems relating to state and local government processing of applications for wireless broadband. The FCC responded by requiring local governments to approve applications for modification of “an existing wireless tower or base station” (including addition, removal and replacement of equipment) if the modification will not “substantially change.” In the Matter of Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies ..., WC Dkts, 13238, 11-15, 13-32, Report and Order, ¶ 182 et seq., (rel. October 21, 2014), <https://goo.gl/uhxeng> . Notably, however, the FCC made it clear that Section 6409(a) does not apply to a state or local government acting in a proprietary capacity, as opposed to a land use regulator. Id., ¶ 239. In other words, like Section 332(c)(7), Section 6409(a) does not apply to modifications of wireless facilities on municipal light poles and other structural property owned by the local government.

75 There may, however, be other state laws addressing how a local government may sell or lease property, or grant a concession, that can limit the ability of a local government to grant preferential treatment in respect of access to infrastructure or facilities.

76 Section 224 of the Communications Act as well as the laws of most states give pole attachment rights only to telecommunications service providers and cable television systems and not to entities, such as dark fiber providers, that do not provide telecommunications services or cable services.

77 Twenty-one states have “reverse-preempted” the federal pole attachment rules. In these states, state pole attachment rules govern rather than the federal rules.

78 Baller Herbst Stokes & Lide each year publishes a compliance memorandum and check list that discusses the federal regulatory requirements that apply to the various categories of communications service providers may encounter. It is available here: <http://goo.gl/doQQmj>

79 Protecting and Promoting the Open Internet, Report and Order on Remand, Declaratory Ruling, and Order, GN Docket No. 14-28, FCC (adopted Feb. 26, 2015, released Mar. 12, 2015), <http://goo.gl/vB8u8M>

80 One of the most important regulatory programs is the FCC’s Universal Service Program (“USP”). Services defined by the FCC as “interstate” “telecommunications,” “telecommunications services,” and “interconnected Voice over Internet Protocol” are subject to the FCC’s complex USP reporting and payment requirements. Unless a provider of any of these services qualifies for one of several potential exemptions, it may have to “contribute” 16 to 18+ percent of its end-user revenues to the Universal Service Fund (“USF”). Although the FCC has now classified residential broadband Internet access service as an “interstate telecommunications service,” it has, at least for the time being, declined to impose USF contribution obligations on providers of that service. This could change in the future, and it is so significant a cost and competitive factor that parties considering a broadband public–private partnership should take it into account.

81 “Private business use of tax-exempt bond financed facilities,” Notice 2014–67 (Nov. 10, 2014), <http://goo.gl/H5Lliz>

82 Google-Kansas City Missouri Development Agreement § 12(d), <http://goo.gl/gLZxTc>

83 See “Concessions, Build-Operate-Transfer (BOT) and Design-Build-Operate (DBO) Projects,” World Bank Infrastructure Resource Center, available at: <http://goo.gl/lwqoyM> (Note that these projects are also known as Build Operate Transfer (BOT) Projects in civil law countries).

84 Virginia officials sought a private sector partner to design and build a 55-mile road (U.S. 460) from Petersburg, just south of Richmond, to Suffolk, Virginia. Payments to the private partner began in early 2013 despite permitting issues that prevented construction from beginning. By February 2014, the state had paid the private partner more than \$83 million for construction “mobilization,” even though the U.S. Army Corps of Engineers had still not granted the needed permits and construction could not move forward. See Michael Laris, “How Virginia Paid More Than \$250 Million for a Road that Never Got Built,” Washington Post (May 30, 2015), <http://goo.gl/aEnieY>

85 Project agreements for major public–private partnership may have dozens of pages of definitions and rules governing the treatment of “Compensating Events,” “Excusing Events,” “Relief Events,” “Change of Law Events,” “Force Majeure Events,” etc.

86 Patrick Sabol and Robert Puentes, “Private Capital, Public Good: Drivers of Successful Infrastructure Public–Private Partnerships,” Brookings Institution (Dec. 2014), <http://goo.gl/MGF4T1>

87 U.S. Department of Treasury, “Expanding the Market for Infrastructure Public-Private Partnerships,” at 7 (April 2015), <https://goo.gl/Zu7T1K>