



Municipal Broadband: A Review of Rules, Requirements, and Options

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Executive Summary

The universal availability of high speed internet service (broadband) is a key goal for the country, the states, and the FCC. As the National Broadband Plan points out,

Like electricity a century ago, broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge.¹

Broadband penetration and speeds are increasing in some parts of the country, particularly in those areas where rural local exchange companies and cooperatives have brought broadband to their customers, but deployment continues to fall short of expectations in other, hard to serve areas, where infrastructure costs are high, the presence of alternative wireline and wireless broadband network providers may be or is limited, and actual or anticipated sales (e.g., broadband "take rates") may not generate the profit margin necessary to support the introduction or upgrade of broadband services or commercial market entry by broadband competitors. This has resulted in gaps between the broadband "haves" in generally well-served urban communities and the "have-nots" in unserved areas.²

Municipal broadband could be one tool for ensuring the universal availability of broadband to all citizens. These networks generally fall into four primary categories:

- **Municipality-owned and managed networks (city networks)** that provide retail service directly to citizens;
- **Utility networks**, generally operated by the municipal electric company, that sell broadband and/or telecommunications services to their own customers using the same model as their electric or other utility service; and
- **Public-private partnerships**, where a municipality contracts with a private concern to provide broadband services to its residents using infrastructure provided by the municipality.
- **Open access (wholesale) networks**, where the city provides the infrastructure and offers it to multiple suppliers to provide retail service.

Today, 143 municipal networks throughout the country offer (primarily) fiber-based, high speed broadband service, with more in the planning stage. When these networks are successful, they increase economic development in previously unserved areas and bring citizens services that would otherwise be unavailable. When they fail, the costs are borne by tax payers. Managed appropriately, and with the proper level of state oversight, these municipal systems

¹ Federal Communications Commission, *Connecting America, The National Broadband Plan*, (Washington, DC, March 17, 2010) p. xi, available at <http://www.fcc.gov/national-broadband-plan>

² Under certain conditions, gaps in coverage can also be observed in selected segments of urban areas that are or can otherwise be served by physical broadband access networks.

could become broadband carriers of last resort in areas that will not or cannot be adequately served by commercial wireline and/or wireless broadband service providers.

Of course, not all municipal networks have been successful. A number have failed, either from poor management or bad business planning, leaving their municipal owners with stranded assets and high costs that must be borne by citizens. These failed networks have encouraged the opponents of municipal broadband to call for strong strictures on their deployment, including limiting the areas which these systems can serve.

Proponents of municipal broadband offer four primary arguments to support their position.

1. Municipalities provide broadband as a public service and, therefore, offer a more customer-focused experience than competitive suppliers which must put shareholder value above customer wishes.
2. Municipalities deploy networks in unserved and underserved areas.
3. Municipal networks increase both public and private investment by building broadband infrastructure and creating new business opportunities.
4. Municipal networks add to rather than eliminate competition.

Opponents of municipal broadband argue that

1. Government-owned projects focus too much on public service goals and not enough on good business practices.
2. Municipal networks are often unprofitable and result in increased costs and stranded assets that must be paid for through higher taxes and assessments.
3. Municipal service providers do not close gaps in broadband service, but, like competitive suppliers, provide service only to those areas where it is profitable to do so.
4. Municipal service providers serve primarily within the city limits and do not serve customers on farms or outside the city limits. This leaves the incumbent telephone companies with a disproportionate share of the higher cost customers.

Twenty-three states have addressed the question of municipal broadband. Of these, four states, Missouri, Nebraska, Nevada, and Texas, prohibit municipal broadband installations completely, and one, Washington, allows municipalities to build only wholesale infrastructure rather than create retail networks. The other 18 states require municipalities to meet specific conditions before they can deploy a network. These conditions range from developing a business plan to ensure the financial success of the network, to proving that a competitive supplier will not build an equivalent network or provide retail broadband access services within the next 14 months.

This paper explores the controversy surrounding municipal broadband through a factual lens. It reviews the statutes controlling municipal telecommunications and broadband projects across the nation, describes the conditions that some see as barriers to system deployment, reviews proposed state legislation limiting or expanding the reach of municipal systems. The paper also provides suggestions for understanding and addressing the competing points of view

about the importance and value of municipally developed projects. The paper also provides an overview of the legal issues surrounding the municipal broadband debate, including two petitions currently pending at the FCC requesting that the agency use its authority under Section 706 of the federal Telecommunications Act to eliminate what the petitioners see as onerous conditions on the expansion of their existing municipal networks.

States and municipalities have chosen different regulatory and business models for municipal broadband. Some have lead to success, while others have resulted in costly failures. Those municipal networks that have succeeded have brought service to areas that would otherwise have remained unserved, benefiting both their direct constituents and, ultimately, the country as a whole. Clearly, then, these successful networks are "in the public interest" and the lessons they teach should drive future legislation and regulation.

There is no simple formula for deciding whether a municipal broadband network deployment will succeed or fail, but the right conditions on these installations may reduce the chance of those failures or mitigate them when they occur. These conditions include developing a business case that addresses both the risks and promises of municipal service; ensuring community support through presentations, referendums, and a firm understanding of the community's needs, and selecting the correct management model to ensure that projections meet reality. In addition, municipalities should focus first on bringing service to unserved and underserved areas.

Municipal broadband may help to meet the critical goal of ensuring that all citizens have access to the digital resources they need to participate fully in the 21st century. The ultimate decision regarding broadband deployment will rest with state legislators. As states wrestle with the questions of broadband expansion, carrier of last resort, and bringing service to unserved and underserved areas, they may want to consider municipal networks as one way of increasing service availability.

This paper is meant as a primer on the question of municipal broadband. It provides an initial look at the way in which the states have addressed this issue legislatively and suggests further avenues for inquiry. The debate over municipal broadband has multiple layers, from assessing the need for municipal participation to questions of subsidies, competition, and regulation. This paper attempts to provide background for understanding those layers.

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Municipal Broadband: A Review of Rules and Requirements

I. Introduction

The universal availability of high speed internet service (broadband) is a key goal for the country, the states, and the FCC. As the National Broadband Plan points out,

Like electricity a century ago, broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge.³

Although broadband penetration and speeds are increasing in some parts of the country, deployment continues to fall short of commonly accepted expectations and targets, particularly in those areas where infrastructure costs are high, the presence of alternative wireline and wireless broadband network providers may be or is limited, and actual and/or anticipated sales (e.g., broadband "take rates") may not generate the profit margin necessary to support the introduction or upgrade of broadband services or commercial market entry by broadband competitors. This has resulted in a gap between broadband "haves" in well-served urban communities and the "have-nots" in unserved areas.⁴ Municipal broadband may be a key component of the solution to this problem.

From a technical perspective, broadband is provided in a number of ways, from traditional digital subscriber line (DSL) service to services provided by fiber to the curb (like AT&T's U-Verse service), and fully fiber optic services such as cable broadband and Verizon's FiOS fiber to the home product. In areas where it is difficult to build the infrastructure necessary to deliver broadband via wired services, wireless and satellite services have been suggested as potential alternatives. The FCC has generally defined broadband as technology providing internet connectivity of 4 megabits per second (Mbps) downstream and 1 megabit per second (Mbps) upstream, although many providers, both private and public, offer service at speeds well above this standard. Municipal broadband networks generally offer service via fiber infrastructure at speeds of 1 gigabit per second (Gbps) and above.⁵

³ Federal Communications Commission, *Connecting America, The National Broadband Plan*, (Washington, DC, March 17, 2010), available at <http://www.fcc.gov/national-broadband-plan> (National Broadband Plan)

⁴ Under certain conditions, "digital divides" can also be observed in selected segments of urban areas that are or can otherwise be served by physical broadband access networks.

⁵ See Lennett, Ben, Patrick Lucey, Joanne Hovis, and Andrew Afflerbach, *The Art of the Possible: An Overview of Public Broadband Options*, New America Foundation, available at http://newamerica.net/sites/newamerica.net/files/policydocs/TheArtofthePossible-OverviewofPublicBroadbandOptions_NAFOTI-CTC.pdf

Proponents of municipal broadband argue that universal broadband availability is unlikely to occur in unserved areas unless the unserved municipalities themselves enter the broadband business, building networks to support their own citizens, regardless of where they reside. These commenters liken the deployment of high speed broadband networks to the building of the infrastructure necessary for electric power distribution in the late 19th and early 20th centuries. They point out that where communities were bypassed by the large, investor-owned electric companies, or where service was delayed, state, local, and federal government agencies ensured the availability of electricity by creating government sponsored organizations like the Tennessee Valley Authority (TVA) or chartering municipal companies to bring service to all. The pro-municipal broadband commenters cite examples of the economic growth brought by municipal broadband systems that have allowed new businesses to locate in their communities, students to access critical resources, and a general increase in the well being of their residents.

Opponents of municipal broadband warn that government-sponsored and managed networks are unfair competitors to private suppliers of broadband and/or telecommunications services and that municipal governments or utilities lack the experience necessary to build and manage large communications projects. These commenters warn that without private investment and the experience of private providers, municipal broadband projects are doomed to failure, with citizens across the state paying the price for bad planning and execution. They point to the number of municipal systems that have failed or been abandoned by municipalities and warn that costly failures are worse than the gaps between areas with access to high speed broadband access services and those without such access.

Is there a way to rationalize these two points of view? Could municipal broadband projects fill in the gaps where private competitors have been unable to deploy broadband? How should such projects be managed? What rules govern municipal broadband on a state by state basis? Could they be revised to incent the development of broadband infrastructure by municipalities, by private companies, and by both groups working together in public-private partnerships? Could (or should) individual states propose legislation to meet the goal of universal broadband availability? Or should the FCC step in, using its authority to ensure the development of advanced services to ensure universal broadband access the way it stimulated universal telephone access?

This paper seeks to provide the data necessary to answer those questions. It is meant as a primer on the question of municipal broadband. It provides an initial look at the way in which the states have addressed this issue legislatively and suggests further avenues for inquiry. The debate over municipal broadband has multiple layers, from assessing the need for municipal participation to questions of subsidies, competition, and regulation. This paper attempts to provide background for understanding those layers.

Although broadband deployment has increased since the National Broadband Plan was issued in 2010, disparities between urban and rural consumers in service availability and network speeds remain, with some parts of the country having no broadband service at all and even the most populated areas often having at most two wireline competitors offering high speed service. While urban consumers and businesses generally have access to at least one (and sometimes two providers) offering speeds that meet or exceed the FCC-mandated 4/1 standard, consumers in

unserved areas have either only service at speeds below the FCC's 4/1 minimum requirement for broadband, no service, or no competition among providers to ensure product availability and service quality.

FCC Chairman Tom Wheeler reinforced this point in a September 4, 2014, speech to the 1776 Alliance, a technology incubator, stating that:

Americans living in urban areas are three times more likely to have access to high-speed broadband than Americans living in rural areas . . . creating a digital divide that the country cannot tolerate.⁶

Chairman Wheeler's speech pointed out that although the availability of broadband meeting the FCC's minimal standards is growing, those standards are no longer sufficient for consumers and businesses that want to take advantage of the digital economy. More importantly, according to the most recent FCC statistics, in most areas, there is little competition service at speeds exceeding the 4/1 Mbps requirement.

Where competition for high speed service does exist, it often comes as the result of one high speed giant drawing another into the game. For example, Google's plan to offer extremely high speed internet service in Austin, Texas has drawn similar offers from its competitors, including AT&T.⁷

At the same time, because private suppliers have chosen not to provide service in other parts of the country or cannot make a business case for doing so, consumers have limited choices among providers or no high speed choices at all.⁸

To that end, cities like Syracuse, New York, and states like Connecticut, have begun to explore municipal telecommunications networks as a way of bringing high speed access to residents. According to Syracuse Mayor, Jean Miner, broadband is "the modern day equivalent of [required civic] infrastructure. . . It's clear that broadband is going to be a foundation of our new economy." And when private suppliers cannot provide that infrastructure, cities may need to step in to fill the gap.⁹

There is no panacea for the closing the gap between the broadband "haves" and "have nots". Resolving the gaps in broadband deployment and increasing competition for

⁶ Prepared Remarks of FCC Chairman Tom Wheeler, The Facts and Future of Broadband Competition, September 4, 2014, available at <http://www.fcc.gov/document/chairman-remarks-facts-and-future-broadband-competition>

⁷ See, for example, Anders Bylund, AT&T's High Speed Internet is Cheap in Austin for a Reason, The Motley Fool, December 12, 2013, available at <http://www.fool.com/investing/general/2013/12/12/atts-high-speed-internet-in-austin-is-cheap-for-a.aspx>

⁸ See Buckley, Sean, Syracuse wants to bypass Verizon, TWC with its own fiber broadband network, Fierce Telecom, August 15, 2014, available at <http://www.fiercetelecom.com/story/syracuse-wants-bypass-verizon-twc-its-own-fiber-broadband-network/2014-08-15>

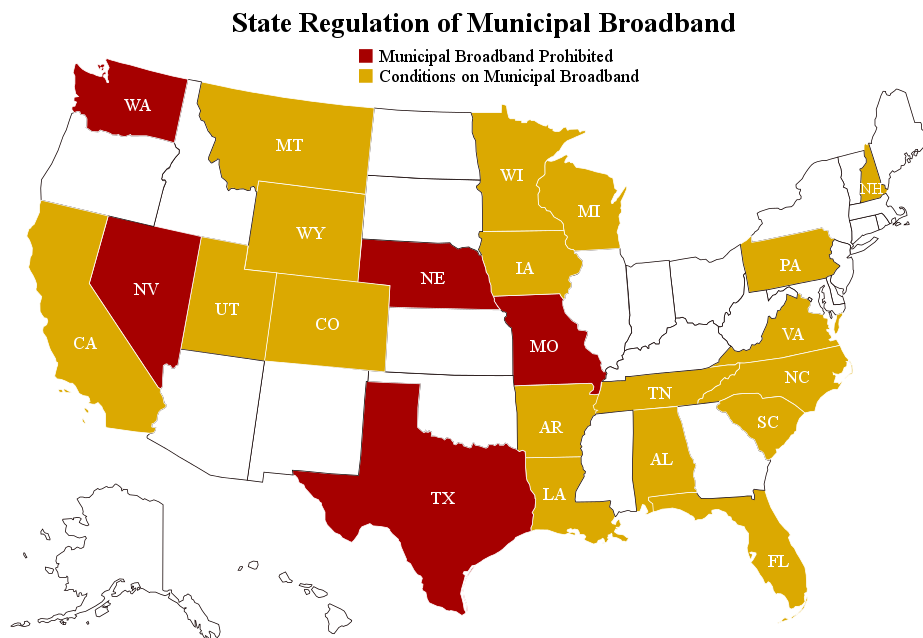
⁹ Id.

high speed services will require all parties in the process to work together to find and implement creative processes for closing the digital divide. Employed correctly, municipal broadband systems may be a key tool for meeting the need for ubiquitous broadband deployment.

Twenty-three states have statutes addressing municipal broadband. Of these, four states, Missouri, Nebraska, Nevada, and Texas, prohibit municipal broadband installations completely.¹⁰ A fifth, Washington, allows municipalities to deploy broadband infrastructure in order to provide wholesale service to other carriers.¹¹ Eighteen other states impose a variety of other conditions on municipal installations.¹² These conditions range from requiring the municipality to conduct a referendum to approve the development of municipal networks to a requirement that the state's private carriers (generally the incumbent telephone and CATV companies) must refuse to bring service to these areas before a municipality can do so.

Figure 1 shows the states where municipal broadband networks are prohibited or where conditions have restricted or otherwise control their deployment.

Figure 1 State Regulation of Municipal Broadband



¹⁰ The District of Columbia also prohibits municipal broadband networks for retail services but provides internal networks for city services and offers free Wi-Fi in municipal buildings, including libraries.

¹¹ Washington House Bill 1711 (2011-2012) would have lifted this restriction but was defeated. See House Bill 1711 (2011 and 2012) would have allowed municipal providers to sell retail services. <http://legiscan.com/WA/text/HB1711/id/83658/Washington-2011-HB1711-Introduced.pdf>

¹² The remaining states do not have statutes addressing municipal systems.

As of September, 2014, municipal broadband networks were operating in 143 towns and cities, with others either under discussion or in progress.¹³

This paper explores the controversy surrounding municipal broadband through a factual lens. It reviews the statutes controlling municipal telecommunications and broadband projects, reviews the conditions that some see as barriers to system deployment, and provides suggestions for ways in which the states may understand the competing points of view about the importance and value of municipally developed network projects.

Part I is this introduction.

Part II reviews the arguments put forth by proponents and opponents of municipal systems. This section addresses the key questions facing legislators and regulators today—should broadband be considered a utility and made available to all; should municipalities step in to provide service when private concerns do not; and can these installations be successful?

Part III reviews the state statutes governing the implementation of municipal telecommunications and broadband projects. This part also reviews recent legislation attempting to restrict or expand the states' authority to create municipal systems.

Part IV addresses the legal issues surrounding municipal broadband deployment. It reviews both the 2004 Supreme Court decision in *Nixon v. Missouri Municipal League* and two pending petitions at the FCC. These petitions, from municipal providers in Tennessee and North Carolina, ask the FCC to assert what the petitioners perceive to be the agency's authority under Section 706 of the Telecommunications Act of 1996 to preempt the state statutes limiting the potential expansion of two existing broadband projects.

Finally, Part V provides recommendations for ways in which states might use municipal broadband to "fill in the gaps" in areas that competition has left behind. For example, could municipal networks ensure that a broadband carrier of last resort (COLR) would still operate in areas where the Internet Protocol (IP) transition of established commercial providers and networks may leave residents without adequate and/or affordable broadband network access? Could public-private partnerships bring broadband to unserved or underserved areas?

II. Municipal Broadband: Problem or Panacea?

As the National Broadband Plan makes clear, access to high speed access to internet services is a key requirement for citizen participation in 21st century government, education, and industry. Understanding how to provide service to all citizens, regardless of where they reside, is a key goal for regulators, legislators, and industry going forward. Managed correctly, municipal

¹³ Zager, Masha, Number of Municipal FTTP Networks Climbs to 135, Broadband Communities, May/June 2013, available at http://www.bbpmag.com/2013mags/may-june/BBC_May13_MunicipalNetworks.pdf

networks may play an important part in this effort, contributing to Chairman Wheeler's four point Agenda for Broadband Competition.

First, where competition exists, the Commission will protect it. Second, where greater competition can exist, we will encourage it. Third, where meaningful competition is not available, the Commission will work to create it. Fourth, where competition cannot be expected to exist, we must shoulder the responsibility of promoting the deployment of broadband.¹⁴

Municipal broadband is viewed by its proponents as a means for ensuring the ubiquitous availability of high speed access to Internet service, particularly in unserved and underserved areas, including those areas where private companies have chosen not to bring fiber to the home, have not installed or sufficiently upgraded wireline or wireless networks for the provision of retail broadband access services, or have decided to move away from wireline services altogether. Municipal systems have garnered both positive acknowledgements and criticisms from state legislatures, Congress, and citizens across the nation. The proponents of municipal broadband argue that broadband is a necessary utility, like electricity or water, and is a requirement for full participation in society.

Opponents of municipal systems do not dispute the importance of broadband but question whether municipal systems can meet the social goals of universal service and broadband availability without placing an additional cost burden on states and communities. They cite unfair competition, below-cost pricing, and the potential for other predatory practices that will unfairly harm private competitors as a reason to limit municipal broadband deployment. These commenters also suggest that public investment will drive out private investment, reducing competition and raising costs. They point to failed installations, increased tax burdens, and threats to competition as a reason to reject or severely limit municipal systems, as well as systems that serve the municipality only and not the surrounding rural area. Opponents of municipal broadband have proposed legislative solutions to the problems they cite, including business case requirements, breakeven analyses, and referendums to gain public support before a municipal broadband deployment project begins.¹⁵

We discuss both sides of the municipal broadband debate here.

A. Municipal Broadband Overview

Municipal telecommunications and broadband networks are not new. Many started as internal networks linking city agencies. Others were developed to provide wireless access (Wi-Fi) to citizens in public buildings or public spaces, such as schools and libraries. Still others were developed as an expansion of the command and control circuits used by municipal electric

¹⁴ Wheeler speech, 9/4/2014

¹⁵ Although some commentators consider these conditions limiting, they are similar to the process that businesses like Google use in determining where to launch their service. See, Google Fiber: Portland Vision May Bring Gigabit Broadband to City, available at <http://guardianlv.com/2014/06/google-fiber-portland-vision-may-bring-gigabit-broadband-to-city-video/#1wzg1PIg8ptGxTHe.99>

utilities to provide automated functions like meter reading or to offer broadband over power lines, a once hoped-for technology that was viewed as a method for bringing high speed access to Internet services to the entire utility customer base.¹⁶

As broadband has become more essential, and consumers and businesses have demanded high speed, fiber-based networks even in rural areas, municipal providers have stepped in to offer increased speed and service, including deploying retail fiberoptic circuits to the home. These networks have been most successful where municipal providers began with a strong business case for the services they intend to offer and where the community supports the project both politically and financially, both voting for the system and buying the services it offers.

Municipal networks generally fall into four primary categories:

- **Municipality-owned and managed networks (city networks)** that provide retail service directly to citizens;
- **Utility networks**, generally operated by the municipal electric company, that sell broadband and/or telecommunications services to their own customers using the same model as their electric or other utility service; and
- **Public-private partnerships**, where a municipality contracts with a private concern to provide broadband services to its residents.
- **Open access networks**, where the city provides the infrastructure and offers it to multiple suppliers to provide retail service to end users.¹⁷

Commenters have suggested that understanding constituent needs has been a key component of deploying successful municipal projects.

City governments often have the ability to provide . . . service . . . to meet local needs. [In this model], the city controls the reins, can oversee the network, and can ensure that the network embodies the government's vision, including subscription rates, upgrades, and network neutrality.¹⁸

Municipal utilities have successfully offered broadband to their customers as an adjunct to their electric or other utility services, either through existing fiber systems or by installing new

¹⁶ Broadband over powerlines (BPL) was initially viewed as the "killer app," turning every power outlet into a broadband port. Despite a few test installations, this service never came to fruition due to technical limitations. Arkansas statute § 23-18-804, Ownership and operation of broadband system, which authorizes the creation of municipal networks, specifically addresses broadband over powerlines. See the Arkansas Broadband Over Powerlines Enabling Act, 2010, available at <http://law.justia.com/codes/arkansas/2010/title-23/subtitle-1/chapter-18/subchapter-8/23-18-804>

¹⁷ For ease of reading, we refer to these systems generically as municipal systems or, as some other commenters do, as "government owned" networks.

¹⁸ See Null, Eric, Municipal Broadband: History's Guide, I/S: A Journal of Law and Public Policy for the Information Society, Volume 9-21, 2013, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1978220

fiber in areas where private companies have either not entered the market or where they do not provide the higher speed services that customers are now demanding.¹⁹

For example, the Electric Power Board of Chattanooga, Tennessee, (EPB) has created a municipal broadband subsidiary that:

Offers ultra-high-speed Internet access, video programming, and voice services over a fiber-optic communications network . . . to . . . its 170,000 residential and commercial customers throughout its 600 square mile electric service area. . . About 63,000 of EPB's electric service customers [37%] subscribe to EPB's fiber services.²⁰

EPB has petitioned the FCC to allow it to expand its service to neighboring towns where it is not the local provider. Tennessee law allows a municipal utility to offer broadband to subscribers only in its own service territory. EPB's petition asks the FCC to preempt this part of the statute and allow it to extend service to a neighboring community.²¹ We discuss this petition in Part IV.

Publicly-owned utilities in other states have successfully offered similar services. BVU, the municipal utility in Bristol, Virginia, provides electricity, water, wastewater and fiber-optic telecommunication and information services to the City of Bristol, Virginia; Washington County, Virginia; and Abingdon, Virginia. BVU became the city's municipal electric utility in 1945. It began offering telecommunications services, including broadband at speeds of 1 Gbps and higher, to its customers in 2001 on a non-profit basis. The system has approximately 11,500 subscribers.²²

LUS Fiber in Lafayette, Louisiana, provides similar services to consumers and businesses in its territory. It offers residential users 1 Gbps internet access service and business users up to 10 Gbps of broadband speed.

¹⁹ The FCC is currently reviewing the 4 Mbps downstream/1Mbps upstream speed standard to determine whether it is sufficient to meet consumer needs. The FCC has proposed raising this standard to 10 Mbps downstream/1 Mbps upstream. The implementation of this proposal could potentially remove standard xDSL services from the definition of broadband. See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket 14-126, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-113A1.pdf

²⁰ See In the Matter of Petition of Electric Power Board of Chattanooga, Tennessee, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, WCB Docket 14-116

²¹ WCB Docket 14-116

²² BVU Optinet, About Us, available at http://www.bvu-optinet.com/templates/default.php?purl=about_us_history&turl=inside_3col_std_template.htm. BVU is not profitable at this point, but does not seek subsidies from the state. The need for states to subsidize municipal utilities has been a concern of those who do not support municipal broadband.

What began as a fiber system to improve operations of the various facilities within the Lafayette Utilities System, has grown into a catalyst for local economic development, education innovation and enhanced video, Internet and phone services for residents and businesses.²³

Failed municipal systems include the open access UTOPIA project in Utah and Burlington Telecom in Vermont. These and other failures have led opponents of municipal broadband to dismiss them as costly projects that result in higher costs to citizens and stranded assets.²⁴

A number of municipalities have offered service through public-private partnerships, with varying results. Successful public-private partnerships include the Minneapolis Wi-Fi network provided jointly with USI Wireless and individual network deployment projects by Google in several states.²⁵

Less successful partnerships have included Wi-Fi offerings in Philadelphia, Pennsylvania; Corpus Christi, Texas; and Portland, Oregon. For example, Philadelphia partnered with Earthlink to create a municipal Wi-Fi service in 2005, but business issues, declining revenue, and competitive pressures resulted in Earthlink abandoning the project in 2008. A similar project in Corpus Christi, Texas, was also abandoned when Earthlink exited the business. Earthlink returned this system to the city, which has successfully continued to offer service.²⁶ Portland's municipal Wi-Fi project also failed due to problems with the supplier, leaving the city with the costs associated with removing the equipment that the supplier installed.²⁷

B. Key arguments in the municipal broadband debate

Proponents of municipal broadband offer four primary arguments to support their position.

²³ LUS Fiber, About Us, available at <http://www.lusfiber.com>

²⁴ See, for example, Fuhr, Joseph P., Jr, Ph.D., The Hidden Problems of Government Owned Networks, Coalition for the New Economy, available at <http://www.coalitionfortheneweconomy.org/wp-content/uploads/2012/01/1-6-12-Coalition-for-a-New-Economy-White-Paper.pdf>

²⁵ The impetus for municipal Wi-Fi has been reduced both by the proliferation of wireless data packages and by private Wi-Fi implementations offered by coffee houses and other "hot spots." See, Whatever Happened to Municipal Wi-Fi, the Economist, 6/26/2013, available at <http://www.economist.com/blogs/babbage/2013/07/wireless-networks#comments>

²⁶ Null, p.32 Corpus Christi initially built the network for remote meter reading. The city sold the system to Earthlink in 2002, which offered service for \$20.00 per subscriber. Earthlink exited the business in 2008 because of declining revenues and a revised business plan and returned the system, including improved equipment and coverage, to the city. ConnectCC continues to operate as a city-wide Wi-Fi network. See ConnectCC, available at <http://www.connectcc.com/aboutconnect.html>

²⁷ Whatever Happened to Municipal Wi-Fi, the Economist, 6/26/2013, available at <http://www.economist.com/blogs/babbage/2013/07/wireless-networks#comments>

1. Municipalities provide broadband as a public service and, therefore, offer a more customer-focused experience than competitive commercial suppliers which must put shareholder value above customer wishes.
2. Municipalities deploy networks in unserved and underserved areas.
3. Municipal networks increase both public and private investment by building broadband infrastructure and creating new business opportunities.
4. Municipal networks add to rather than eliminate competition.

The opponents of municipal installations are concerned that government-supported services reduce opportunities for private companies to enter the market, thereby limiting competition rather than increasing it. They argue that:

1. Government-owned projects focus too much on public service goals and not enough on good business practices.
2. Municipal networks are often unprofitable and result in increased costs and stranded assets that must be paid for through higher taxes and assessments.
3. Municipal service providers do not close the "digital divide," the gap between those with access to high speed internet access services and those without access. Like competitive commercial suppliers, they provide service only to those areas where it is profitable to do so, leaving areas outside the municipality without service.²⁸

Finally, the opponents of municipal broadband provide examples of failed (or failing) networks as proof that municipal entities are incapable of managing large scale projects or meeting business goals.

We discuss these issues in the following paragraphs.

1. Business goals versus social goals

Proponents of municipal broadband argue that municipalities understand customer needs better than private corporations and deploy networks where and when their citizens need them. Municipal networks tend to offer higher speed services based on fiber to the home, because they build infrastructure from the ground up. According to these commenters, municipal providers focus on providing service in areas where commercial providers will not go.

Commercial service providers are not interested in serving entire communities—only middle- to upper-income households with enough disposable income to generate average monthly revenues of \$100 to \$200. Municipal broadband would

²⁸ "Digital divide" has become a term of art in the telecommunications and broadband community denoting the gap between consumers with access to wired high speed broadband service and those without such access. For the purposes of this paper, we use this term to refer to consumers with and without access to internet service at the FCC's minimal standard of 4 Mbps downstream and 1 Mbps upstream. These areas are generally defined as "unserved" in the National Telecommunications Information Administration (NTIA) Broadband Map.

offer high-speed Internet to low-income households, enabling them to access the educational, commercial and social benefits of the digital economy.²⁹

Proponents of municipal systems argue that municipalities view the service they provide as a public good, like electricity or clean water, meeting a social as well as economic need. These commenters argue that government-owned suppliers are necessary in unserved and underserved areas to close the digital divide.

Local governments provide needed broadband services designed to address community needs. By contrast, while private enterprise does a good job of providing broadband where profitable, it does not provide timely deployment to address health, education and welfare issues. By contrast private companies, appropriately, work to maximize profit. While the profit motive often fosters innovation and deployment, it will leave vital community needs unmet unless local governments step in to fill the gap.³⁰

Opponents of municipal broadband postulate that the focus on the social benefits of broadband diverts management oversight away from profitability, resulting in cost overruns, stranded assets, and the failure of these projects. These commenters fear that municipal governments will provide broadband service regardless of its financial feasibility and will thus fail in spite of their good intentions.

Economics and consumer welfare are important considerations in deciding how to best deliver broadband to all areas of the country. . . However, the costs of deployment, maintenance and updating technologies means that some communities remain without broadband access as it is not fiscally feasible for [competitive] providers to expand into those areas. . . Many [municipal networks] fail because they lack a sustainable business plan and the long-term resources to invest in maintenance and necessary upgrades as technology evolves. When this has happened, taxpayers have had to fund the failures.³¹

²⁹ Titch, Stephen, Lessons in Municipal Broadband from Lafayette, Louisiana, The Reason Foundation, 2013, available at http://reason.org/files/municipal_broadband_lafayette.pdf

³⁰ Feld, Harold, Gregory Rose, Mark Cooper, Ben Scott, Connecting the Public: The Truth About Municipal Broadband, Media Access Project, Consumer Federation of America, Freepress, April, 2005, available at http://www.freepress.net/sites/default/files/fp-legacy/mb_white_paper.pdf

³¹ Fuhr, Joseph P., Jr, Ph.D., The Hidden Problems of Government Owned Networks, Coalition for the New Economy, available at <http://www.coalitionfortheneweconomy.org/wp-content/uploads/2012/01/1-6-12-Coalition-for-a-New-Economy-White-Paper.pdf>

2. Financial and business success

Defining the financial "success" of municipal networks is difficult. Because many of these networks serve previously unserved areas, start-up costs may be high. The decision to offer fiber to the home may also require high initial investment and a longer pay back period.

Opponents of municipal networks question the ability of local governments to manage large projects like broadband networks, citing cost overruns, project failures, and the need for state subsidies to keep these networks operating.

It is important to consider whether a government possesses the expertise to develop and operate a broadband network. This is an especially important question in the broadband market where technology is constantly changing and firms need to be flexible and have the ability to constantly update their business plans. Communities that want to invest public funds must have well defined plans, goals and milestones.³²

These commenters cite examples of failed networks like the UTOPIA project in Utah and Burlington Telecom in Vermont as examples of ill-conceived networks that did not properly consider their costs or incorrectly predicted revenues.³³

While the question of the need for subsidies is beyond the scope of this paper, it clearly raises the cost to tax payers for the project and needs close examination as these projects are defined and implemented. Like all successful businesses, successful municipal utilities will create effective business cases that adequately address costs, prices, and customer penetration rates.

Proponents of municipal broadband cite the number of "gigabit cities" created by municipal enterprises as proof that municipal broadband can be as successful as commercial projects. A recent study by Network World lists ten US communities that now provide gigabit access via municipal projects.

Some communities throughout the country have been ahead of the curve, establishing their own high-speed services, the benefits of which reach the education, healthcare, and local economy, as well as consumers looking to stream high-quality video in their living rooms.³⁴

³² Id.

³³ See Mitchell, Christopher, Learning from Burlington Telecom, Institute for Local Self-Reliance, August, 2011, available at <http://www.muninetworks.org/sites/www.muninetworks.org/files/bt-lessons-learned.pdf>. Of course commercial telecommunications companies, like FairPoint and Hawaii Telecom, have also suffered financial setbacks, including bankruptcy for many of the same reasons causing municipal networks to fail.

³⁴ Neagle, Colin, 10 Cities That Provide 1-Gig Internet Services, Network World, 2/26/14, available at <http://www.networkworld.com/article/2174701/lan-wan/10-cities-that-provide-1-gig-internet-services.html?nsdr=true>

These cities include Chanute, KS; Chattanooga, TN; Santa Monica, CA; Lafayette, LA; Burlington VT; Tullahoma, TN; Bristol, TN; Cedar Falls, IA; Russellville, KS; and Wilson, NC. As a point of comparison, Google currently provides gigabit access only to its Kansas market, although it is expanding to Provo, UT and Austin, TX. AT&T, Comcast, Cox, and Verizon are also raising speeds in existing markets, although Verizon is not adding new fiber installations at this time.

3. Competition and investment

Proponents of municipal broadband cite its success in bringing new business to previously unserved areas or adding higher speed options to the basic tier service available via copper-based digital subscriber line service (xDSL). As FCC Chairman Wheeler has pointed out, even in the most competitive areas, wired competition may be only between two companies, the CATV provider and the incumbent wireline telecommunications provider, with only limited speed options above the FCC's 4/1 speed standard. In rural locations, choice is even more limited, often only between a wireline and a wireless or satellite provider. Municipal networks may increase these choices.³⁵

To resolve the problem of limited or no competition, some cities have urged competitive providers to extend fiber to their constituents. Some of these cities are now examining municipal broadband (generally through public-private partnerships) as a means of increasing broadband availability and speeds for their constituents and improving their "business-friendliness." For example, Syracuse, New York, is studying municipal broadband as a means of enhancing the city's growth potential. As Mayor Stephanie Miner pointed out in a recent interview about Syracuse's evaluation of the need for a municipal network,

High-speed Internet is the modern day equivalent of infrastructure. . . It's clear that broadband is going to be a foundation of our new economy."³⁶

Connecticut is also considering building an open-access state network that would make it the first "gigabit state." Connecticut released an RFQ in September, 2014, seeking input from competitive commercial suppliers and others on building and managing the network, which would provide low cost, high speed service to communities across the state. Issued jointly by the mayors of New Haven, West Hartford, and Stamford, the RFQ has three goals:

- Create a world-leading gigabit-capable network in targeted commercial corridors – as well as in residential areas with demonstrated demand – in order to foster innovation, drive job creation and stimulate economic growth.

³⁵ Wireless and satellite options are available in urban areas as well as rural areas, but unlike in rural areas, these options are generally in addition to wired options.

³⁶ Buckley, Sean, Syracuse wants to bypass Verizon, TWC with its own fiber broadband network, Fierce Telecom, August 15, 2014, available at <http://www.fiercetelecom.com/story/syracuse-wants-bypass-verizon-twc-its-own-fiber-broadband-network/2014-08-15>

- Provide free or heavily discounted 10-100 MB (minimum) Internet service over a wired or wireless network to underserved and disadvantaged residential areas across the territories and diverse demographics.
- Deliver gigabit Internet service at prices comparable to other gigabit fiber communities across the nation.³⁷

If Syracuse and Connecticut succeed in building their own networks, the area's competitive commercial suppliers may be motivated to upgrade their services and price them at levels equivalent to the municipal networks, adding to the choices available to citizens.³⁸

Opponents of municipal broadband discount the idea that the municipal alternatives to commercial services offer increased investment and, ultimately, competition. They suggest, instead, that government-supported programs drive out private investment and, thus, reduce competition. These commenters fear that government sponsored networks will "use their competitive advantage from the tilted playing field as well as the ability to artificially inflate competitors' costs to foreclose entry into the market".³⁹

A 2005 study in the Journal of Applied Economic Studies evaluated the hypothesis that public investment reduces competition.

An important policy question is whether or not public investment in communications crowds out private investment, or whether such investment encourages additional entry by creating wholesale markets and economic growth. We test these two hypotheses – the *crowding out* and *stimulation* hypothesis . . . We find strong evidence favoring the stimulation hypothesis, since public investment in communications network increases competitive communications firm entry by a sizeable amount.⁴⁰

A number of states have placed conditions on municipal broadband to avoid this situation. They require municipal networks to price their offerings at the same level as similar competitive

³⁷ Bode, Karl, Connecticut Tries to Do Something About State's Poor Broadband, DSL Reports, September 16, 2014, available at <http://www.dslreports.com/shownews/Connecticut-Tries-to-Do-Something-About-States-Poor-Broadband-130475>. Baltimore is also considering using its existing dark fiber ring to provide municipal service.

³⁸ Of course, competition is a double edged sword. Where competitors enter a market served by a municipal provider, some customers may switch to the new entrant, adding risk to the city's business plan. Municipal providers must learn to be successful in a competitive environment.

³⁹ Fuhr, p.5

⁴⁰ Ford, George, Does Municipal Supply of Communications Crowd-Out Private Communications Investment? An Empirical Study, Energy Economics, February, 2005, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=925970 Interestingly, Ford's more recent work argues against municipal networks. See, for example, Ford, George S., Ph.D., Do Municipal Networks Offer More Attractive Service Offerings than Private Sector Providers? A Review and Expansion of the Evidence, January 27, 2014, The Phoenix Center for Advanced Legal & Economic Public Policy Studies, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2407148

products and prohibit municipalities from using public monies to undercut competitors. We discuss those conditions in Part III.

III. State Regulations Governing Municipal Broadband

The questions about the effectiveness, financial stability, and impact on competition raised by opponents of municipal networks have resulted in 23 states limiting or otherwise controlling the deployment of these networks, either through an outright prohibition or by creating specific requirements the proposed systems must meet before they are approved. In most cases, these statutes were written in the early 2000s before the availability of high speed broadband networks and services became a key question for providers, legislators, and consumers alike. Furthermore, incumbent and competitive providers of wireline telecommunications services mainly utilized existing physical network facilities for the delivery of broadband access services, e.g., xDSL. Indeed, the majority of these statutes address telecommunications rather than broadband, prohibiting services for which a certificate of public convenience and necessity (CPCN) is required or where a municipality might want to offer local exchange telephone service. With very few exceptions, these state statutes have not been amended over the years, and do not address issues such as the deregulation of retail telecommunications services and prohibitions on regulating broadband access and retail IP-based services such as Voice over the Internet Protocol (VoIP).

While proponents of municipal broadband see the conditions in the current statutes as obstacles, some may actually be building blocks for the successful installation of functional and sustainable municipal communications networks.

This section reviews these statutes in order to understand the obstacles to municipal broadband network deployment, service offerings, and operations. It also reviews recent state legislation addressing this issue.⁴¹

A. Five states prohibit or sharply restrict municipal service

Missouri, Nebraska, Nevada, and Texas prohibit the provision of municipal telecommunications service completely. Washington allows municipalities to build municipal networks but must use them only to provide wholesale services to other carriers, rather than for retail service.⁴² Of the state statutes prohibiting municipal networks, only one, Nebraska, speaks directly to broadband service. Statutes in the other states are either silent on the question or, like Missouri, specifically exclude "internet service" from the prohibition.

⁴¹ This paper takes no position on how state legislators should address the question of municipal broadband. States understand the needs and concerns of their constituents and promote them through the legislation that they deem necessary. This section reviews those statutes so that legislators and regulators may understand what other states have done as they begin to consider changes to their own rules regarding municipal broadband.

⁴² The District of Columbia also prohibits retail municipal service, although there is no statute that speaks directly to this issue. DC's city-owned network, DCNet, sells service to city and Federal agencies and provides free Wi-Fi in city facilities. Email from Cary Hinton, District of Columbia Public Service Commission, July 31, 2014

1. Missouri

Missouri statute 392.420 prohibits municipalities from offering any telecommunications service for which a CPCN is required.

No political subdivision of this state shall provide or offer for sale, either to the public or to a telecommunications provider, a telecommunications service or telecommunications facility used to provide a telecommunications service for which a certificate of service authority is required.⁴³

While the Missouri statute clearly prohibits municipality from providing telecommunications services, it exempts "internet-type" services from this prohibition.

Nothing in this subsection shall restrict a political subdivision from providing telecommunications services or facilities [for] . . . Internet-type services.⁴⁴

It is unclear whether this exemption might be construed to allow a municipality to provide standalone broadband service without a voice component or potentially other IP-enabled services that do not require a CPCN.

Missouri's statute prohibiting municipal telecommunications services is the most well-known of the state statutory restrictions on municipal communications services, since it was the subject of a 2004 U.S. Supreme Court ruling. The Missouri statute was upheld by the U.S. Supreme Court in *Nixon v. Missouri Municipal League*, which found that Sections 253(a) and (d) of the Telecommunications Act of 1996, instructing the FCC to preempt "state or local legal requirement [that] may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service" did not apply to municipalities, because they are not individual "entities," but are subdivisions created by the state for its own purposes.⁴⁵

We discuss this decision in more detail in Section IV, reviewing the current litigation regarding municipal broadband.

2. Nebraska

Nebraska's broadband prohibition appears to be the most restrictive of the states that limit the installation of municipal services. Statutes 86-594 and 595 prohibit telecommunications and broadband offerings by both municipalities and municipal utilities.

⁴³ Missouri Revised Statutes Ch 392 §410.7, available at <http://www.moga.mo.gov/statutes/C300-399/3920000410.HTM>

⁴⁴ Missouri Revised Statutes

⁴⁵ *Nixon v. Missouri Municipal League et al.*, 541U.S.125 (2004)

An agency or political subdivision of the state that is not a public power supplier shall not provide on a retail or wholesale basis any broadband services, Internet services, telecommunications services, or video services.⁴⁶

A public power supplier shall not provide on a retail basis any broadband services, Internet services, telecommunications services, or video services.⁴⁷

The legislation authorizing Nebraska's ban on municipal telecommunications and broadband services (LB 645, an Act Relating to Telecommunications and Technology) also established a commission to determine the "implications" of broadband provided by state "agencies or subdivisions" on competition and "private sector investment on networks for the provision of such services."⁴⁸ The Task force issued its report in November 2006, elucidating the concerns that continue to underlie today's debate over municipal broadband—the impact on competition and the potential negative effect on broadband investment by private companies.

- Competition at the wholesale level by public power suppliers will negatively affect the future investment and deployment of broadband infrastructure by the private sector.
- Public funding for competing infrastructure will place public power suppliers at a competitive advantage with private providers and may be redundant since private providers are currently providing multiple broadband options using a variety of technologies.
- A public/private partnership model, in which private providers lease publicly owned broadband facilities, will provide a disincentive for private providers to further invest in broadband infrastructure.⁴⁹

The task force report includes a finding that "the marketplace and private competition should establish the price of broadband service." The study further found that the majority of Nebraskans had access to broadband service via xDSL, cable modem service, and at least two satellite broadband providers that provided service in rural areas (albeit at 200 kilobits per second, a speed that would not qualify as broadband today), so there was little need for public investment to increase service penetration.

⁴⁶ Nebraska Revised Statute 86-594. Agency or political subdivision of state; limitation on power, available at <http://nebraskalegislature.gov/laws/statutes.php?statute=86-594&print=true>

⁴⁷ Nebraska Revised Statute 86-595. Public power supplier; limitation on retail services, available at <http://nebraskalegislature.gov/laws/statutes.php?statute=86-595&print=true>

⁴⁸ Nebraska Legislative Bill 645 (2005), available at <http://www.legislature.ne.gov/FloorDocs/99/PDF/Final/LB645.pdf>

⁴⁹ Nebraska Broadband Services Final Report, 11/22/2006, available at <http://nitc.ne.gov/documents/BSTF%20-%20Final%20Report%2011-22-06.pdf>

3. Nevada

Nevada prohibits cities with greater than 25,000 residents and counties with greater than 55,000 residents from providing telecommunications services. Nevada Statute 710.147 does not address broadband or other IP-enabled services.⁵⁰ Nevada bill AB 486 deregulated all telecommunications services in March, 2013.

4. Texas

Like Missouri, Texas prohibits municipalities and municipal utilities from offering any services requiring a CPCN. Section 54.201-202 of the Texas Utility Code prohibits

A municipality or municipal electric system . . . [from offering] for sale to the public. . . a service for which a certificate of convenience and necessity, a certificate of operating authority, or a service provider certificate of operating authority is required.⁵¹

The prohibition on municipal telecommunications service does not prohibit a municipal utility from offering its energy customers

energy related service[s] involving the transfer or receipt of information or data concerning the use, measurement, monitoring, or management of energy utility services provided by the municipally owned utility, including services such as load management or automated meter reading.⁵²

Texas does not require providers of broadband service to obtain a CPCN. Thus, as in Missouri, a broadband-only municipal network might not necessarily be prohibited. This question has not been addressed in either state.⁵³

5. Washington

Washington does not formally prohibit municipal telecommunications or broadband services. Rather, the Washington statute allows municipalities to build such systems but then restricts them to providing wholesale services only.

⁵⁰ Nevada Revised Statutes § 710.147 (2013), available at <http://law.justia.com/codes/nevada/2013/chapter-710/statute-710.147>

⁵¹ TX Utilities Code Sec. 54.201, available at <http://www.statutes.legis.state.tx.us/Docs/SDocs/UTILITIESCODE.pdf>

⁵² TX Utilities code 54.202

⁵³ The Texas PUC is currently reviewing how to amend its statutes regarding CPCNs in light of the deregulation bill passed in 2013. See Public Utility Commission of Texas, Rulemaking to Amend PUC Subst. R. §26.111 as Required by Provisions of HB 1600 (83rd Regular Legislative Session) Relating To Certificate of Operating Authority (COA) and Service Provider of Operating Authority (SPCOA) Criteria, available at http://interchange.puc.state.tx.us/WebApp/Interchange/Documents/41612_1_760031.PDF

A public utility district in existence on June 8, 2000, may construct, purchase, acquire, develop, finance, lease, license, handle, provide, add to, contract for, interconnect, alter, improve, repair, operate, and maintain any telecommunications facilities within or without the district's limits . . . for internal use and to provide wholesale service.⁵⁴

The Washington legislature addressed this limitation on municipal services during the 2011-2012 legislative sessions, proposing an amendment to the current statute to allow municipalities to offer retail telecommunications services, including broadband, in their own territory and adjacent territories. HB 1711 was specifically directed to unserved and underserved areas of the state.

In an effort to address the concerns of competitive commercial carriers, the bill included a prohibition against subsidizing the service or under pricing private providers.

In an effort to reach . . . unserved or underserved [areas], it is the intent of the legislature to grant public utility districts the authority to provide retail telecommunications services, including broadband, with the expectation that these services will be subject to the same telecommunications taxes, fees, and surcharges that are applicable to other telecommunications providers in the state.⁵⁵

Although HB 1711 failed in committee, it addressed two of the key issues facing municipal broadband implementations; first, the use of municipal systems to "fill in the gaps" where private carriers have not provided service (or have not provided high speed service); and, second, a process for ensuring that the municipal systems meet the same business objectives as private carriers. We discuss those objectives and review the conditions on municipal broadband deployment on the other states below.⁵⁶

B. 18 states place conditions on municipal network services

Eighteen states require municipalities and municipal utilities to meet specific requirements prior to building a municipal network. These requirements range from limiting municipal networks to unserved or underserved areas to seeking the approval of the state's incumbent carrier (right of first refusal) before beginning the project. In addition, some states allow municipalities to build broadband networks but prohibit them from offering voice service or limit the offering to wholesale service only. Ten of these states also require a referendum approving the service, as well as public meetings to describe the service and costs. Generally, these laws require municipalities to meet multiple conditions.

⁵⁴ WA Code 54.16.330, available at <http://apps.leg.wa.gov/rcw/default.aspx?cite=54.16.330>

⁵⁵ Washington House Bill 1711 (2011 and 2012), available at <http://legiscan.com/WA/text/HB1711/id/83658/Washington-2011-HB1711-Introduced.pdf>

⁵⁶ This paper covers only those states that have specifically addressed municipal telecommunications and or broadband in their state statutes.

These states are shown in Table 1.

Table 1: State Requirements for Municipal Broadband

State Requirements for Municipal Broadband	
Requirements	States
Unserved areas/no private carrier willing to enter	CA (Note 1), CO (Note 2), MT (Note 1), PA (Note 2), SC (Note 1), WI (Note 2), WY (Note 2)
Service limited to municipality	AL, AR, MA, NC, TN, VA (Note 3)
Referendum, public hearing	AL, CO, FL, LA, MN (Note 4), NH, NC, UT, WI, WY
Business plan, no subsidies, or tax inducements	AL, FL (Note 5), IA, LA, NC, NV, SC, UT (Note 6), VA, WI, WY
Wholesale only	WA

Note 1: May discontinue service if competitor enters

Note 2: Carrier right of first refusal

Note 3: VA svc may extend 75 mi on request

Note 4: 65% voters must agree in areas served by an incumbent provider

Note 5 : Project must break even in 4 years

Note 6: Project must break even in 5 years

Author's construct based on state data

We examine these conditions individually in the following sections and then explore their effect on municipal installations when taken as a group.

1. Limit service to unserved areas

Seven states, California, Colorado, Montana, Pennsylvania, South Carolina, Wisconsin, and Wyoming, allow municipalities to provide service in unserved areas. These areas may be self-identified by the residents of the municipality or defined by the state public service commission. In addition to proving that the area where the municipality intends to offer service is "unserved," four of those states, Colorado, Pennsylvania, Wisconsin, and Wyoming, require municipalities seeking to offer telecommunications or broadband service to obtain the approval of the local incumbent telecommunications carrier, CATV provider, and/or incumbent advanced services provider before beginning to build a system. This right of first refusal adds additional time and effort to the process and thus may delay the potential deployment or expansion of municipal broadband network systems.

On the positive side, the limitation of service to unserved areas directs municipal investment to where it is most needed, and allows these areas to receive broadband service before (or in lieu of) the same type of service that may be or is offered by an incumbent telecommunications carrier. Creating municipal broadband networks in unserved (and in some cases underserved) areas may also provide a means of creating a municipal "carrier of last resort" to provide broadband service to all citizens.

On the negative side, requiring the municipal network to be the "single provider" in a specific municipality and demanding the "buy in" from a private carrier reduces the potential for competition in these areas, thus limiting the options available to consumers.⁵⁷

We discuss these conditions in more detail below.

a. Unserved areas

Montana allows municipalities to build broadband networks in areas where competitive entry has not yet happened. The Montana statute recognizes the importance of broadband, as well as the interplay between government-owned and operated networks and private networks.

The legislature recognizes that access to affordable, high-speed internet services is critical to the state's economic future and that the planning, development, and delivery of quality internet services should be a coordinated effort among state government, local governments, and private enterprise.⁵⁸

While the Montana statute recognizes the importance of competition, it allows municipalities to provide service if that service would not otherwise be available; including in cases where a private provider will not provide advanced services, including potentially fiber to the home and speeds above the FCC mandated levels.

An agency or political subdivision may act as an internet services provider if . . . no private internet services provider is available within the jurisdiction served by the agency or political subdivision; or [to provide] advanced services that are not otherwise available from a private internet services provider . . .⁵⁹

Interestingly, the Montana statute assumes that "if you build it, they will come," and so addresses the question of private entry in areas served by municipal networks.

Once a municipal service is offered, a private provider may elect to provide internet services in that area. The private provider shall inform the municipal

⁵⁷ Price competition is one of the key factors cited by anti-municipal broadband commenters as the reason for prohibiting municipal providers. These commenters fear that municipal utilities could undercut pricing. We discuss this issue more fully when we review the requirement for a positive business case for service.

⁵⁸ Montana Code Annotated 2013, Section 2-17-601, available at <http://leg.mt.gov/bills/mca/2/17/2-17-602.htm>

⁵⁹ Id, Section 2-17-603, available at <http://leg.mt.gov/bills/mca/2/17/2-17-603.htm>

provider in writing at least 30 days before entering. After receiving notice, the public provider shall notify subscribers of the private entry and may choose to discontinue service within 180 days of the notice.⁶⁰

California and South Carolina have statutes similar to Montana's.

California allows municipalities to provide broadband service where "a private person or entity is unable or unwilling to deploy broadband service". Under this circumstance, the municipality may "construct, own, improve, maintain, and operate broadband facilities and to provide broadband services."⁶¹

Like Montana, when a private entity is ready to enter its service area, the California municipality must

(1) Diligently transfer its title, ownership, maintenance, control, and operation of those broadband facilities and services at a fair market value to that private person or entity, or, (2) Lease the operation of those broadband facilities at a fair market value to that private person or entity.⁶²

The California statute imposes the preconditions that the "private person or entity is ready, willing, and able to acquire, construct, improve, maintain, and operate broadband facilities and to provide those services, and to sell those services at a comparable cost and quality of service as provided by the [municipal] district." California Government Code Section 61110(f).

These preconditions provide certain assurances that the municipal government entity does not suffer a financial loss through the transfer of broadband network facilities and services to a private entity, and that broadband access services continue to be provided at "comparable" levels of quality and price to end-users. However, this type of statutory mandate may also act as a disincentive to the potential development and actual deployment of municipal broadband network systems.

South Carolina also restricts municipal broadband systems to unserved areas, although with a somewhat wider definition. South Carolina defines unserved areas as "persistent poverty counties" where at least 75% of households have no access to broadband from a wireline supplier or access only from a satellite provider.⁶³ Municipal providers may petition the state utility commission to designate additional counties as unserved. Private providers must be notified of

⁶⁰ Montana Code, 2-17-603

⁶¹ California Government Code, Section 61100-61107, available at www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=61001-62000&file=61100-61107

⁶² California Government Code 6100(a)(f)

⁶³ This number is raised to 90% in non-poverty counties.

these petitions prior to the commission acting on them. The private provider may contest the determination that an area is unserved.⁶⁴

b. Incumbent carrier right of first refusal

Four states, Colorado, Pennsylvania, Wisconsin, and Wyoming, further limit the provision of municipal broadband even in otherwise unserved areas by giving the incumbent local telecommunications services, CATV, and/or advanced services provider the ability to halt (or delay) the project by installing its own service. In each of these states, the municipality must proactively contact the incumbent to ask whether it will provide service to unserved areas. The incumbent is then given 60 to 90 days to respond and additional time (generally 14 months) to complete the project.

Colorado's requirement that a municipality seek the incumbent providers' approval of a municipal project was codified in Senate Bill 05-152 in 2005. The bill provides that a Colorado municipality may provide telecommunications, broadband, or cable TV service only after determining that

(a) no private provider of cable television service, telecommunications service, or advanced service provides the service anywhere within the boundaries of the local government; (b) The governing body of the local government has submitted a written request to provide the service to any incumbent provider of cable television service, telecommunications service, or advanced service within the boundaries of the local government; and (c) The incumbent provider has not agreed [to provide service] within sixty days of the receipt of a request.⁶⁵

Once the incumbent has agreed to provide service, it has 14 months to do so.

The Pennsylvania statute is similar, limiting both the locations where municipalities may provide broadband service and requiring the incumbent telecommunications carrier's approval to do so. In addition, the Pennsylvania statute focuses on the ability of the ILEC to provide the speed of service requested by the municipality.

Section 3014(h) Ch 30, Title 66 of the Pennsylvania Public Utility Code specifically prohibits municipalities from offering service in an incumbent local exchange telephone company's (ILEC's) territory, unless the ILEC confirms that it does not have plans to do so. The municipality must make the request in writing; the ILEC has 60 days to respond and an additional 14 months to deploy the broadband access service at the requested speed if it chooses to do so by itself or through an affiliate:

A political subdivision may offer advanced or broadband services if the political subdivision has submitted a written request for the deployment of such service to

⁶⁴ South Carolina Statutes, Title 58, Section 9-2600, Government owned communications service providers; available at <http://www.scstatehouse.gov/code/t58c009.php>

⁶⁵ Colorado Senate Bill 152 (2005), Competition in Utility and Entertainment Services, available at <http://faircompetitionalliance.com/legal-resources/colorado/colorado-statute-in-full/>

the local exchange telecommunications company serving the area and, within two months of receipt of the request, the local exchange telecommunications company or one of its affiliates has not agreed to provide the data speeds requested. If the local exchange telecommunications company or one of its affiliates agrees to provide the data speeds requested, then it must do so within 14 months of receipt of the request.⁶⁶

Municipalities that provided broadband services prior to the passage of Pennsylvania's Act 183 (2004), 66 Pa. C.S. § 3011 *et seq.*, were exempted from the prohibition on municipal networks. Kutztown, Pennsylvania, for example, began offering service in 2002 and now offers cable television service, broadband access services up to 8 Mbps, and telecommunications through the Hometown division of its municipal electric company.⁶⁷ A separate Pennsylvania statute permits a borough that operates an electric utility system to also operate a CATV system.⁶⁸ Kutztown's CATV operations originally relied on this statutory foundation, and the Borough of Pitcairn in Western Pennsylvania also operates a municipal CATV network.

Wisconsin and Wyoming also limit municipal broadband networks to unserved areas after the incumbent provider has refused a request to install service. In Wisconsin, private carriers that agree to provide service to unserved municipalities must respond to the municipality within 90 days of the request.⁶⁹ In Wyoming, Title 37 of the Wyoming Code also requires that the municipality give competitive providers 90 days to respond positively to a request to do so.⁷⁰ If the provider confirms that it will not provide service to the unserved area, the municipality may begin taking the other steps required before network construction can begin – including business case development and a public hearing to gather support for the project.

2. Service limited to current municipal footprint

Five states, Alabama, Arkansas, North Carolina, and Tennessee, allow municipalities and municipal utilities to deploy telecommunications and broadband systems, but limit service to the utilities' service territory or place other restrictions on these offerings.⁷¹ In two of these states,

⁶⁶ Section 3014(h) Ch 30, Title 66, Pennsylvania PUC Code, available at <http://www.legis.state.pa.us/cfdocs/legis/LI/consCheck.cfm?txtType=HTM&ttl=66&div=0&chpt=30§n=14&subsectn=0>

⁶⁷ Hometown Utilicom Broadband Services, Borough of Kutztown, PA, available at http://www.kutztownboro.org/kutztown/departments/telecom/uploads/HomeNetJan14handout_web.pdf

⁶⁸ 53 Pa. S. § 4741

⁶⁹ Wisconsin Statute 66.0422, Video service, Telecommunications, and Broadband Facilities, available at <http://docs.legis.wisconsin.gov/statutes/statutes/66/IV/0422/3n>

⁷⁰ Wyoming Statutes 37-1-101(a)(vi) and 37-15-413, available at <http://law.justia.com/codes/wyoming/2013/title-37/>

⁷¹ These states also place additional conditions on service deployment, including business case requirements and referendums or other means of ensuring that residents agree to the costs of system installation. We discuss those limitations later in this paper.

North Carolina and Tennessee, the municipal authorities have sought unsuccessfully to expand service beyond their current territory into adjacent unserved areas.⁷²

The Virginia statute allows municipalities that provided service before 2002 (when limitations on municipal service were enacted) to provide telecommunications and internet access services upon request to areas up to 75 miles beyond the utility's boundaries.

Any locality that operates an electric distribution system may provide telecommunications services, including local exchange telephone service, within or outside its boundaries if the locality obtains a [CPCN]. Any locality providing telecommunications services on March 1, 2002, may provide telecommunications, Internet access, broadband information, and data transmission services within any locality within 75 miles of the geographic boundaries of its electric distribution system as such system existed on March 1, 2002.⁷³

Alabama and Arkansas limit municipal service to broadband and then only within the utilities' territory. In addition, Arkansas requires that municipal systems be open to multiple suppliers, although the utility may determine which suppliers may have access to its infrastructure.⁷⁴

Tennessee allows a municipal utility to provide service only within its territory. If the utility provides voice service, it must obtain a CPCN from the Tennessee Regulatory Authority. Nine of the 61 municipal electric utilities in Tennessee provide telecommunications and/or broadband. Municipal utilities that offer telecommunications service:

Shall be subject to regulation by the Tennessee regulatory authority in the same manner and to the same extent as other certificated providers of telecommunications services, including, but not limited to, rules or orders governing anti-competitive practices, and shall be considered as and have the duties of a public utility.⁷⁵

A bill proposed in the 2013-2014 Tennessee legislative session would have allowed municipal utilities to extend service beyond their territory in order to bring fiber to the home in

⁷² See FCC WCB Docket 14-116, In the Matter of Petition of Electric Power Board of Chattanooga, Tennessee, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, and FCC, WCB Docket 14-115, In the Matter of Petition of City of Wilson, North Carolina, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks

⁷³ Code of Virginia, § 15.2-2160(A), Provision of telecommunications services, available at <http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+15.2-2160>

⁷⁴ Arkansas Code, Section 23-18-804. Ownership and operation of broadband system, available at <http://law.justia.com/codes/arkansas/2010/title-23/subtitle-1/chapter-18/subchapter-8/23-18-804>

⁷⁵ Tennessee Code 7-52-401, Authority with relations to telecommunications equipment and services, available at <http://law.justia.com/codes/tennessee/2010/title-7/chapter-52/part-4/7-52-401/>

unserved areas. We discuss this bill and the petitions to the FCC to set aside the limitations on municipal broadband in Section II.D.

North Carolina also limits municipal networks to unserved areas identified by the North Carolina Utilities Commission. The limitations on municipal networks were created by the legislature in 2011 as part of House Bill 129, An Act to Protect Jobs and Investment by Regulating Local Government Competition with Private Business (Session Law 2011-84). The bill placed a significant number of conditions on new municipal broadband networks in an effort to:

Protect private sector] jobs and promote investment. .. [by] ensur[ing] that the State does not indirectly subsidize competition with private industry through actions by cities and to ensure that where there is competition between the private sector and the State it exists under a framework that does not discourage private investment and job creation.⁷⁶

3. Business Plans, Referendums, and Public Hearings

One of the chief concerns raised by those who do not support municipal broadband is that municipals may get a "leg up" on the competition by using tax payer funds to build broadband networks. They add to this concern the fear that municipal systems may drive out competition and, therefore, reduce broadband availability all together or fail and leave customers and assets stranded. The key questions here are whether these risks are more prevalent with municipal systems and what municipalities may do to mitigate them.

The National Broadband Plan recognizes these risks but suggests that they may be both manageable and necessary in order to meet the goal of universal broadband availability.

Municipal broadband has risks. Municipally financed service may discourage investment by private companies. Before embarking on any type of broadband build out, whether wired or wireless, towns and cities should try to attract private sector broadband investment. But in the absence of that investment, they should have the right to move forward and build networks that serve their constituents as they deem appropriate.⁷⁷

The financial risks for municipalities' developing their own networks may be mitigated by strong management and good business practices. For this reason, 11 of the 15 states that put

⁷⁶ North Carolina House Bill 129, An Act to Protect Jobs and Investment by Regulating Local Government Competition with Private Business (Session Law 2011-84), Preamble, available at <http://www.ncga.state.nc.us/sessions/2011/Bills/House/PDF/H129v7.pdf>

⁷⁷ Federal Communications Commission, Connecting America, The National Broadband Plan, pg 158, available at <http://www.fcc.gov/national-broadband-plan>

conditions on municipal broadband providers⁷⁸ require a business plan and/or public approval of the project in advance.

These financial and business conditions include simple requirements to ensure that municipal networks compete on an even footing with private ventures in terms of pricing and costs to more onerous requirements for record keeping (separate books, imputed costs, pricing at the same level as private competitors) and the time allotted for the network to break even.

a. Business Case/Breakeven Analysis

The primary business condition states place on municipal networks is the ability to function without subsidies or special financial arrangements (including a requirement for self-financing). In some cases, the network must also break even or become profitable within a specific time period. The state legislatures introducing these requirements consider them a means of ensuring that the costs of the municipal network will be borne by the network itself and not by the city or state.⁷⁹

It is important to note that there are municipal networks in each of these states despite this seemingly difficult requirement.

North Carolina's statute makes the financial requirements municipal networks must meet particularly clear. A North Carolina municipality that wishes to deploy a broadband network:

Shall not subsidize the provision of communications service with funds from any other non-communications service, operation, or other revenue source, including any funds or revenue generated from electric, gas, water, sewer, or garbage services. [And] shall not price any communications service below the cost of providing the service, including any direct or indirect subsidies received by the city-owned communications service provider and allocation of costs associated with any shared use of buildings, equipment, vehicles, and personnel with other city departments.⁸⁰

Florida requires municipal networks to become profitable within four years. If they do not, the entity must shut down, merge with a private company, or seek approval from the municipal council or other authority to continue to provide service.

⁷⁸ Alabama, Florida, Iowa, Louisiana, Nevada, North Carolina, South Carolina, Virginia, Utah, Wisconsin, and Wyoming require municipal networks to submit business plans that show the network will breakeven without subsidies.

⁷⁹ Supporters of municipal broadband tend to disagree with this requirement. Although many of these commenters support the need for a good business case and strong community buy in, the number of "hoops" municipalities must jump through in creating these business cases extends the time required for building and deploying municipal systems. See, for example, Roop, Lee, 7 Things Chattanooga Says to Huntsville About Adding High Speed Internet, AL. Com, June 14, 2014, available at http://www.al.com/news/huntsville/index.ssf/2014/06/7_things_chattanooga_says_to_h.html

⁸⁰ Id. § 160A-340.1(a)(7)(8)

If, after 4 years following the initiation of the provision of communications services . . . revenues do not exceed operating expenses and payment of principal and interest on the debt for a governmental entity's provision of communications services . . . [it] shall hold a public hearing . . . to do at least one of the following: 1. Approve a plan to cease providing communications services; 2. Approve a plan to dispose of the system. . . and cease providing communications services; 3. Approve a plan to create a partnership with a private entity . . . or 4. Approve the continuing provision of communications services by a majority vote of the governing body of the governing authority.⁸¹

Florida also prohibits below cost pricing and cross subsidization of services from a municipal utility's other offerings; i.e., a utility offering both power and broadband may not subsidize one revenue stream with another.⁸² Despite these restrictions, a number of municipal broadband networks provide service in Florida, including GatorNet in Gainesville, which offers 50 Mbps service via fiber to the home and the city of Ocala, which also offers a fiber-based network.

Iowa, too, requires municipal networks to operate profitably without subsidies and to meet the same pricing and reporting requirements as private providers. The Iowa code provides that:

A city that owns or operates a municipal utility providing telecommunications services or such a municipal utility shall not do, directly or indirectly, any of the following: (1) Use general fund moneys for the ongoing support or subsidy of a telecommunications system. (2) Provide any city facilities, equipment, or services to provide telecommunications systems or services at a cost for such facilities, equipment, or services which is less than the reasonable cost of providing such city facilities, equipment, or services. (3) Provide any other city service, other than a communications service, to a telecommunications customer at a cost which is less than would be paid by the same person receiving such other city service if the person was not a telecommunications customer. (4) Use funds or revenue generated from electric, gas, water, sewage, or garbage services provided by the city for the ongoing support of any city telecommunications system.⁸³

⁸¹ Florida Statutes §§ 125.421, 166.047, 196.012, 199.183 and 212.08; <http://www.flsenate.gov/Laws/Statutes/2012/350.81>

⁸² This is a common prohibition and is generally similar to certain regulatory prohibitions on private providers that restrict cross-subsidization of "competitive" services by regulated non-competitive services.

⁸³ Iowa Code, §388.10, Municipal utility providing telecommunications services, available at <http://law.justia.com/codes/iowa/2014/title-ix/subtitle-4/chapter-388/section-388.10/>

In spite of (or perhaps because of) these stringent financial requirements, Iowa has the largest number of municipal networks in the nation.⁸⁴

Unfortunately, as many commenters have pointed out, business plans and a prohibition against subsidies do not guarantee success for municipal networks. One of the most publicized failures of a municipal system is the UTOPIA project in Utah. Although Utah requires municipal networks to become profitable within five years, even the best of business plans sometimes lead to errors that cannot be overcome.

Utah requires that municipalities planning to offer telecommunications or broadband services hire a "feasibility consultant" to determine whether the service can become profitable within the required five year timeframe. The study must also determine:

Whether the municipality providing public telecommunications services in the manner proposed by the municipality will hinder or advance competition for public telecommunications services in the municipality.⁸⁵

The UTOPIA project is an open access, fiber to the home network that depended on individual cities or private business partners to provide retail service. UTOPIA began with a positive business case that predicted breakeven within five years. Despite the advance planning, the project failed for many reasons, including poor management and financial blunders, leaving its members without broadband but with significant debt. As the 2012 report of the Utah Legislative Auditor points out,

UTOPIA originally planned to build a broadband network in three years and to achieve a positive cash flow in five years. However, it has not met that schedule. Instead, the cost of financing and operating the network increased before UTOPIA could provide a substantial number of customers with service. As a result, revenues have not been sufficient to cover its costs.

Provo's iProvo fiber to the home network failed for similar reasons and has been sold to Google. Other members of the UTOPIA consortium are still determining how to proceed.⁸⁶ Most recently, these cities have been reviewing offers from private capital firms that hope to purchase all or part of the system.⁸⁷

b. Referendums and Public Hearings

⁸⁴ Iowa Association of Municipal Utilities, available at <http://www.iamu.org/>

⁸⁵ Utah Municipal Code Title 10, Chapter 18, Section 203; available at http://www.le.utah.gov/code/TITLE10/htm/10_18_020300.htm

⁸⁶ Utah Legislative Auditor General, Performance Audit of the Utah Telecommunication Open Infrastructure Agency, Report No. 2012-08, available at http://le.utah.gov/audit/12_08rpt.pdf

⁸⁷ Harris, Jesse, Understanding UTOPIA, Macquarie, and the options open to cities, Utah Politico, June 27, 2014, available at <http://utahpoliticohub.com/understanding-utopia-macquarie-and-the-options-open-to-cities/>

Municipal systems require citizen support, both to build the network and to ensure enough subscribers to meet the business plan. As Matthew Dunne points out in a 2007 Columbia Law Review article assessing the potential for FCC preemption of municipal broadband restrictions:

States can employ a number of mechanisms for ensuring that localities appraise these needs accurately. Some states that want to ensure fiscal responsibility, citizen support, and long-term sustainability already direct that municipalities carry out feasibility studies, public hearings, or referendums.⁸⁸

For this reason, 10 states, Alabama, Colorado, Florida, Louisiana, Minnesota, New Hampshire, North Carolina, Utah, Wisconsin, and Wyoming, require a referendum and/or public hearing to authorize the municipality to proceed with the development of the system.⁸⁹

The referendum is generally the final part of the larger process described here (i.e., determination that an area is unserved, request to competitive suppliers to provide service, business case, and the determination that a municipal network can serve the area at an acceptable cost). On the positive side, the referendum condition provides citizens with a clear understanding of what the network will require, how costs will be determined, and solicits interest in the network that will presumably support it going forward. On the negative side, the requirement for referendums and public hearings may delay the network long enough to diminish citizen interest and depress the eventual subscriber take rate for the system's contemplated broadband offerings.

We discuss some of the key points of these referendums in the following paragraphs.

Both Florida and Colorado condition the decision to offer municipal broadband on the outcome of a public hearing where constituents review the financial viability of the project (cost/benefit analysis) as well as determine whether a:

Similar service is currently being offered in the community and, if so, whether the service is generally available throughout the community. [And] if the same or similar service is not currently offered, whether any other service provider proposes to offer the same or a similar service and, if so, what assurances that service provider is willing or able to offer regarding the same or similar service.⁹⁰

⁸⁸ Dunne, Matthew, Let My People Go (Online): The Power of the FCC to Preempt State Laws That Prohibit Municipal Broadband, Columbia Law Review, Vol. 107, No. 5 (Jun., 2007), pp. 1126-1163, available at <http://www.jstor.org/stable/40041745>

⁸⁹ Proponents of reduced strictures on municipal broadband deployment view these referendums as impediments to the process. The correct answer is presumably somewhere in the middle. See, for example, Null, Eric, Municipal Broadband: History's Guide (October 9, 2012), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1978220

⁹⁰ Florida Statute 350.81, Communications Services Offered by Government Entities, available at <http://www.flsenate.gov/Laws/Statutes/2012/350.81>

Florida's statute is the most stringent. It requires municipalities that want to provide broadband to hold two public hearings, 30 days apart, to explain the proposal and provide a review of the financial requirements, including a business case. The municipality must inform the Florida Department of Revenue of the location and time of the hearing 40 days before it is scheduled, so that the Department may send notice to all registered communications providers in the state. These providers may then comment on the proposal, including challenging whether areas are served or unserved.

After making specific findings regarding the[se] factors . . . the governmental entity may authorize providing a communications service by a majority recorded vote and by resolution, ordinance, or other formal means of adoption.⁹¹

Similarly, Colorado requires a referendum to approve the development of a municipal cable TV, broadband, or telecommunications system, as well as confirmation that an area is unserved. As part of the referendum, the municipality must describe the proposed service and explain the local government's role in its delivery (i.e., primary supplier, wholesaler, etc.). The ballot information must also describe the potential subscribers for the service.⁹²

A city may be exempted from the referendum if it can prove that the area is not served by a commercial supplier. To do so, it must submit a written request to the incumbent suppliers seeking their interest in offering service. If "the incumbent provider has not agreed within sixty days to provide the service or, if the provider has agreed, [but] has not commenced providing the service within fourteen months of the receipt of the request," the city may move forward with a municipal network.⁹³

Minnesota also requires municipalities to solicit support for municipal telecommunications projects via a referendum. A majority vote is required for a municipality to purchase or acquire existing plant by condemnation. Municipalities wishing to provide broadband and telecommunications services in areas where there is an existing telephone exchange must gain a 65% vote in order to offer service.⁹⁴

As in other states, municipalities in Wisconsin and Wyoming may provide broadband in areas where there is no commercial provider. Before doing so, however, both states must hold a public hearing, provide a report on projected project costs and revenues, and obtain written concurrence from private firms that they have no plans to enter the unserved market.⁹⁵

⁹¹ Id. 350.81(d)

⁹² Colorado statute 29-27-103, Limitations on providing cable television, telecommunications, and advanced services, available at http://tornado.state.co.us/gov_dir/leg_dir/olls/sl2005a/sl_289.htm

⁹³ Id. 29-27-202

⁹⁴ Minnesota Statute 237.19, Municipal Telecommunications Services, available at <https://www.revisor.mn.gov/statutes/?id=237.19> Minnesota has no unserved areas so there has been little consideration of municipal entry.

⁹⁵ See Wisconsin Statute 66.0422, Video service, Telecommunications, and Broadband Facilities, available at <http://docs.legis.wisconsin.gov/statutes/statutes/66/IV/0422/3n> and Wyoming Statute 37-1-

In summary, while in the long run, meeting these conditions will create stronger broadband projects, taken as a group, they appear daunting. By making a concerted effort to win citizen support and create business plans that will result in a profitable enterprise, municipalities may overcome the majority of these conditions. The exception to this rule is the requirement that the incumbent telecommunications carrier or cable company exercise its right of first refusal before a municipal network may proceed. Meeting this condition could postpone the deployment of an otherwise successful municipal broadband system long enough to dampen citizen enthusiasm and thus reduce the chances of meeting business plan goals.

C. 2013 -2014 Legislation

Municipal broadband continues to be a key question for state legislators, resulting in draft bills on both sides of the issue. Lobbying on both sides of the issue has been intense, with industry "warning" legislators about the dangers of allowing government supported networks to provide service in competition with private suppliers, and municipal broadband advocates pointing to municipal networks as the only way to close the digital divide.⁹⁶

Six states, Georgia⁹⁷, Kansas, Mississippi, New Hampshire, Tennessee, and Utah, proposed legislation regarding municipal telecommunications and broadband projects during the 2013 - 2014 legislative session. Of these bills, three, in Georgia, Kansas, and Utah, sought to limit the ability of municipalities to offer broadband services. In the other three states, Mississippi, New Hampshire, and Tennessee, the bills sought to reduce the limitations on municipal projects, including increasing the authority of municipalities to seek outside funding for these programs. In addition to these bills, Hawaii passed legislation aimed at streamlining telecommunications infrastructure development and promoting access to high speed services.⁹⁸ We discuss these bills below.

To assist state legislatures seeking to prepare legislation regarding municipal broadband, the American Legislative Exchange Council (ALEC), an industry-supported lobbying group, offers state legislatures a draft legislation package proposing each of the conditions described earlier. The purpose of the draft legislation, permitting the provision of telecommunications and

101(a)(vi) and 37-15-413, available at <http://law.justia.com/codes/wyoming/2013/title-37/>. Private providers have 90 days to respond to the request to provide service.

⁹⁶ See Stricker, Jeff, Casting a Wider 'Net': How and Why State Laws Restricting Municipal Broadband Networks Must Be Modified, 81 GEO. WASH. L. R. 589, 600-601 (Feb. 2013), available at <http://connection.ebscohost.com/c/articles/86286608/casting-wider-net-how-why-state-laws-restricting-municipal-broadband-networks-must-be-modified>; see also Feld, Harold, Gregory Rose, Mark Cooper, Ben Scott, Connecting the Public: The Truth About Municipal Broadband, Media Access Project, Consumer Federation of America, Freepress, April, 2005, available at http://www.freepress.net/sites/default/files/fp-legacy/mb_white_paper.pdf

⁹⁷ Georgia currently places no conditions on municipal broadband. This bill would have changed that policy.

⁹⁸ Hawaii Act 133 (SB 981) available at <http://legiscan.com/HI/text/SB2981/2014>

broadband access services only by the private sector, is clearly stated in the preamble to the proposed model "Municipal Telecommunications Safeguards Act."

The Legislature recognizes the importance of the widespread provision of telecommunications and advanced services and cable television services. For the vast majority of citizens these services are provided by private entities. In certain instances municipalities or their agents have sought to provide such services in competition with private providers. This act limits the authority of municipalities to own and operate telecommunications and advanced service and cable television facilities and to provide public and advanced telecommunication and cable television services to a municipality's inhabitants. When municipalities do provide such services this act provides safeguards to ensure that private providers with whom the municipality competes are not disadvantaged by the municipality in the exercise of its bonding and taxing authority, management of rights of way, assessment of fees or taxes, or in any other way.⁹⁹

The ALEC proposal includes conditions on pricing, a requirement for public meetings and referendums, and specifications for a five-year breakeven business case. Interestingly, while other ALEC-sponsored legislation proposes reducing or eliminating service quality standards for retail telecommunications and/or broadband services, this model bill includes standards requiring municipal networks to provide service quality equivalent to that provided by private concerns.

(1) A municipality that provides a cable television service or a telecommunications or advanced service shall adopt an ordinance governing the quality of service the municipality shall provide to its subscribers. (2) The ordinance required by Subsection (1) shall (a) be competitively neutral; and (b) contain standards that are substantially similar to the standards imposed on private providers operating within the geographic boundaries of the municipality under: (i) the Cable Communications Policy Act of 1984, 47 U.S.C. 521, et seq.; (ii) the Telecommunications Act of 1996, Pub. L. 104-104; (iii) [State statutes governing public utilities]; (iv) regulations issued by the Federal Communications Commission under the statutes listed in Subsections (2)(b)(i) and (ii); and (v) rules made by the [State Public Service Commission].¹⁰⁰

1. Legislation limiting municipal broadband networks

Georgia, Kansas, and Utah proposed legislation in the 2013-2014 sessions that mirrors the ALEC recommended limitations on municipal broadband.

⁹⁹ American Legislative Exchange Council, Municipal Telecommunications Private Industry Safeguards Act, available at <http://www.alec.org/model-legislation/municipal-telecommunications-private-industry-safeguards-act/>; Safeguards Act, available at <http://www.alec.org/model-legislation/municipal-telecommunications-private-industry-safeguards-act/>. ALEC has also proposed model legislation for reducing or eliminating state public utility commission oversight of retail telecommunications and broadband services.

¹⁰⁰ Id. Section 15

Georgia currently requires that municipal telecommunications providers obtain a CPCN before providing service, just as private companies must, but does not place any additional conditions on municipal offerings. House Bill 2082 would have amended Georgia law to add conditions limiting municipal service to unserved areas and requiring the state commission to certify that an area is unserved. HB 2082 would have limited:

Public providers of broadband service to . . . provide such services in unserved areas; . . . [and give] the Public Service Commission [the authority] to make a determination as to whether an area is an unserved area and [to adjudicate] certain violations [of the Act].¹⁰¹

HB 2082 would have grandfathered existing municipal systems, but would have made it more difficult for new systems to be developed. In order to offer broadband, a municipality would need to petition the Georgia Public Service Commission to declare an area as unserved based on information from the U.S. Department of Commerce's National Telecommunications and Information Administration's (NTIA's) National Broadband Map. The petition would need to include a list of unserved census blocks and could be challenged by other providers. Most importantly, the bill did not differentiate between wired and wireless providers (including satellite providers) but simply defined a "served" area as one where customers can download data at 3 Mbps or faster, a standard less stringent than the 2013 FCC standard of 4/1 Mbps or higher standards recently proposed by the FCC in relation to the federal Universal Service Fund and Connect America Fund mechanisms (e.g., 10/ Mbps).¹⁰²

Kansas bill SB 304 also appears to have been based on the ALEC model legislation. The bill would have allowed municipal broadband only in unserved locations and would have added a further caveat limiting the municipality's immunity from anti-trust considerations. In addition, while a municipality could not use its power of eminent domain to acquire equipment (such as a central office or telephone switch) from an existing provider, it could use that power to acquire real property in order to obtain an easement for the purpose of providing services to unserved areas.

The fiscal note attached to the bill explained its potential effects on the state:

The League of Kansas Municipalities indicates that passage of SB 304 would have a significant fiscal effect on the cities in Kansas . . . where existing private businesses do not provide [broadband]. . . passage of SB 304 could cause the loss of economic development opportunities, which would include additional jobs and increased assessed valuation of property. In addition, the League notes that an unintended consequence of the act would be that cities would be precluded from

¹⁰¹ Georgia House Bill 282, The Municipal Broadband Investment Act, available at <http://legiscan.com/GA/comments/HB282/2013>

¹⁰² Prepared Remarks of FCC Chairman Tom Wheeler, The Facts and Future of Broadband Competition, September 4, 2014, available at <http://www.fcc.gov/document/chairman-remarks-facts-and-future-broadband-competition>

leasing space on water towers and other similar aerial structures for use by telecommunications and cable industry.¹⁰³

The proposed Kansas bill SB 304 did not pass.

Finally, Utah Bill HB 60, Interlocal Entity Service Prohibition, would have prohibited a municipality from offering telecommunications or broadband service outside its territory.

In locations outside the boundaries of its members, a fiber optic network interlocal entity may not: (i) construct infrastructure directly related to the operation of a fiber optic network; or (ii) provide telecommunication service.¹⁰⁴

Had it passed, this bill would have added Utah to the list of states allowing municipal utilities to provide telecommunications and broadband services using in-place fiber-optic capacity but limiting the operations of these networks to the utility's existing territory. We discuss the petition of EPB Fiber in Tennessee to overturn this type of restriction later in this paper.

2. Legislation easing restrictions on municipal networks

Three states, Mississippi, New Hampshire, and Tennessee, proposed legislation reducing limitations on municipal broadband. Although this legislation did not pass, we discuss it here as a counterbalance to those states seeking to reduce the ability of municipalities to offer enhanced services.

Mississippi looked to public-private partnerships with equipment and private communications providers to make broadband service available across the state by 2020. Mississippi House Bill 489 would have authorized:

The local governing authorities of each county and municipality in any area of the state with a median household income below two hundred percent (200%) of the federal poverty guideline . . . to enter into public-private partnerships with select communications and information technology service providers and/or telecommunications enterprises for purposes of providing broadband services to rural and impoverished areas of the state.¹⁰⁵

New Hampshire allows municipalities to use city-owned infrastructure to provide open access for broadband services. During the 2013-2014 legislative sessions, New Hampshire considered a bill to expand this access via public-private partnerships and simplified funding

¹⁰³ Hummell, Jon, Interim Director of the Budget, Kansas Division of the Budget, Fiscal Note for SB 304 by Senate Committee on Commerce, available at http://kslegislature.org/li/b2013_14/asures/documents/fisc_note_sb304_00_0000.pdf

¹⁰⁴ Utah House Bill 60, Interlocal Entity Service Prohibition, available at <http://le.utah.gov/~2014/bills/hbillint/HB0060.pdf>

¹⁰⁵ Mississippi House Bill 489, available at <http://legiscan.com/MS/text/HB489/id/929617/Mississippi-2014-HB489-Introduced.html>

procedures. House Bill 286 sought to increase broadband availability, while maintaining the restriction on a municipality's ability to offer service directly to end users.

The state of New Hampshire must act decisively to facilitate the infrastructure investments that are needed to make broadband/high speed Internet available to its citizens, just as it does with electricity, telephone service, highways, and roads. Open access networks and universal access are the keys to establishing a thriving, competitive market offering low cost, high-speed Internet services to the public. The state should allow our counties and municipalities to provide access to service by building broadband infrastructure, **provided they do not provide broadband services themselves.** [Emphasis added]¹⁰⁶

The state's primary incumbent local exchange carrier, FairPoint, opposed the bill, which was not reported out of committee.

Tennessee allows municipal utilities to provide broadband service within their own territories, even if unserved areas in neighboring jurisdictions request that service be extended to them. House Bill 2562 would have amended the current statute to allow municipal utilities to extend service beyond their territory upon request and with the approval of the adjacent utility systems. The bill would have designated "community improvement areas" for expansion, defined as:

Any area within the county in which the municipal electric system's or the governmental utility authority's principal office is located and within each county that is immediately adjacent to such county.¹⁰⁷

HB 2562 appears to have been proposed in response to the request of the Chattanooga, Tennessee Electric Power Board (EPB), a current municipal broadband supplier to extend service to the next town. Tennessee bill HB 2562 did not pass. The Chattanooga EPB is currently petitioning the FCC to overturn the existing state restrictions on municipal broadband through the use of Section 706 of the federal Telecommunications Act.¹⁰⁸

IV. The legal context for municipal broadband

As the need to extend broadband to unserved and underserved areas becomes more critical, consumer advocates and municipal providers have sought ways to overcome the conditions placed on system deployment by their state legislatures. These advocates argue that the "digital divide" requires immediate action by the FCC, both to ensure that broadband

¹⁰⁶ New Hampshire House Bill 286, available at <http://legiscan.com/NH/text/HB286/2014>, Sections I- IV

¹⁰⁷ Tennessee House Bill 2562, available at <http://legiscan.com/TN/text/SB2562/id/948956/Tennessee-2013-SB2562-Draft.pdf>

¹⁰⁸ In the Matter of Petition of Electric Power Board of Chattanooga, Tennessee, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, WCB Docket 14-116

deployment is extended to unserved and underserved areas as rapidly as possible and to protect municipal providers from being unfairly disadvantaged by industry-supported legislation making broadband expansion too difficult. These advocates have based their legal arguments on two sections of the Telecommunications Act, 253 and 706, with varying success.

We discuss those arguments here in order to provide context for the current discussion of municipal broadband and to help legislators considering legislation concerning municipal broadband.¹⁰⁹

A. *Nixon v. Missouri Municipal League*

Missouri was one of the first states to move to limit municipal telecommunications providers. It passed a law in 1997 prohibiting municipalities from offering telecommunications service.

No political subdivision of this state shall provide or offer for sale, either to the public or to a telecommunications provider, a telecommunications service or telecommunications facility used to provide a telecommunications service for which a certificate of service authority is required.¹¹⁰

A group of Missouri municipal providers, municipalities and others petitioned the FCC to overturn these restrictions, because they violated Section 253(a) of the federal Telecommunications Act of 1996 (TA-96), 47 U.S.C. §253(a). The petitioners' argument turned on Section 253's prohibition against states erecting barriers to competition and the FCC's duty to remove those barriers.

No State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service. . . . If, after notice and an opportunity for public comment, the Commission determines that a State or local government has permitted or imposed any statute, regulation, or legal requirement that violates [this section], the Commission shall preempt the enforcement of such statute, regulation, or legal requirement to the extent necessary to correct such violation or inconsistency.¹¹¹

The FCC refused to preempt the Missouri statute, because, it reasoned, the term "any entity" in the Act did not include the state itself or political subdivisions of the state, including municipalities and municipal entities. The FCC's Order, however, did not challenge the

¹⁰⁹ The author is indebted to Labros Pilalis of the Pennsylvania Public Utility Commission for his help in understanding these cases.

¹¹⁰ Missouri Revised Statutes Ch 392 §410, available at <http://www.moga.mo.gov/statutes/C300-399/3920000410.HTM> We discuss this statute more fully in Section III. A. The Missouri statute specifically exempts "internet-type" service from this prohibition. This exemption was not addressed in *Nixon*, and no Missouri municipality has challenged it to date.

¹¹¹ 47 U.S.C. §253(a) and (d)

effectiveness or importance of municipal services in meeting the Act's goal of universal service or its support for increasing the availability of advanced services.

In its decision, the Commission noted that it ruled in favor of the state on purely legal grounds:

The legal authorities that we must look to in this case compel us to deny the Missouri Municipals' petition The Commission has found that municipally-owned utilities and other utilities have the potential to become major competitors in the telecommunications industry. In particular, we believe that the entry of municipally-owned utilities can further the goal of the 1996 Act to bring the benefits of competition to all Americans, particularly those who live in small or rural communities.¹¹²

The Missouri Municipal League appealed the FCC decision to the U.S. Court of Appeals for the 8th Circuit, which ruled in favor of the Municipal League in 2002, pointing to the term "any entity," as including subdivisions of the state.¹¹³ However, the U.S. Court of Appeals for the District of Columbia Circuit had reached the opposite conclusion in 1999 regarding a similar 1997 FCC ruling. *Abilene v. FCC*, 164 F.3d 49 (DC Cir. 1999).

With conflicting decisions in place from two U.S. Courts of Appeals, *Nixon v. Missouri Municipal League* moved to the U.S. Supreme Court, which upheld the FCC's refusal to preempt the state law for four reasons.

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First, a state law regulating municipalities cannot be preempted because the municipality is not a separate entity from the state under the meaning of "entity" in § 253.70. Second, even if the Missouri statute were preempted, municipalities would not inherently have the authority to build telecommunications networks absent a grant of such authority from the state. . . . third: even if the statute was preempted and authority to build the network existed, the state could simply cut off funding for the network's construction or maintenance via budgeting decisions.¹¹⁴

The Court's fourth reason is the most intriguing. It determined that by preempting the Missouri statute, the Court and the FCC would create a "national crazy quilt" of states where municipal networks were legal in some states and illegal in others. The "crazy quilt" would not

¹¹² Stricker, p 600, fn 66

¹¹³ *Nixon v. Missouri Municipal League*, 541 U.S. at 128–29

¹¹⁴ Stricker, p. 600

only be confusing, but would also be the product of federal law as opposed to “free political choices” at the state level.¹¹⁵

The Nixon decision foreclosed the question of FCC preemption of state laws prohibiting or significantly reducing the ability of municipalities to create government sponsored networks for another ten years, until the U.S. Court of Appeals for the District of Columbia Circuit re-opened the question in its decision in *Verizon v. FCC* in January, 2014.¹¹⁶ That decision opened the possibility that the FCC could use Section 706 of the federal Telecommunications Act, rather than Section 253, to eliminate "barriers to broadband availability."

We discuss the two FCC petitions raising this issue in the following paragraphs.

B. Wilson, NC and Chattanooga, TN

In separate petitions to the FCC, two municipal broadband providers, the City of Wilson, North Carolina, and EPB Broadband, a municipal utility in Chattanooga, Tennessee have challenged their respective states laws limiting the expansion of their existing municipal broadband systems to neighboring cities.¹¹⁷ These providers have called for the FCC to use its authority under Section 706 of the federal Telecommunications Act to eliminate barriers to the deployment of advanced telecommunications services by preempting the North Carolina and Tennessee statutes that limit municipal system expansion in order to ensure that advanced services are being deployed to all Americans on a timely basis.

Both petitions point to Section 706 of the 1996 Telecommunications Act as providing an affirmative requirement for the FCC to evaluate whether "advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion" and to act on its findings.

¹¹⁵ Missouri Municipal League at 137 Of course, state legislation has created such a "crazy quilt" already.

¹¹⁶ *Verizon v. FCC*, 740 F.3d 623 (DC Cir., 2014), 2014 U.S. App. LEXIS 680, available at [http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/\\$file/11-1355-1474943.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf)

¹¹⁷ See In the Matter of Petition of Electric Power Board of Chattanooga, Tennessee, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, FCC WCB Docket 14-116, filed July 24, 2014; and In the Matter of Petition of City of Wilson, North Carolina, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, FCC WCB Docket 14-115, filed July 24, 2014. See Section III for a discussion of the state statutes governing municipal network deployments and operations in these two states. Both the Wilson and Chattanooga petitions were filed at the FCC by the same law firm, Baller-Herbst, which has specialized in issues surrounding municipal network systems.

If the Commission's determination is negative, it shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.¹¹⁸

The petitioner's read the DC Circuit Court of Appeals decision in *Verizon v. FCC* as finding that Section 706(a) of the Act is:

An independent congressional mandate to the [FCC] and the States to encourage reasonable and timely deployment of advanced telecommunications capabilities to all Americans, using all available 'measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment'.¹¹⁹

The petitions attempt to distinguish the legal basis for the affirmative relief that they seek from the U.S. Supreme Court ruling in *Nixon v. Missouri Municipal League*, by pointing out that the question here is not whether they can provide telecommunications services throughout their territory, but whether they can provide the "advanced services" specifically described in Section 706 of the Act.

The EPB petition also points to a single condition in Tennessee law that limits broadband expansion, while at the same time allowing utilities to offer telecommunications services throughout their operating territory.

Under current Tennessee law, Tennessee municipal electric systems, including EPB, are authorized to provide telecommunications services anywhere in the state. Even though the high-speed fiber optics system that EPB would use to deliver such telecommunications services would also permit it to easily provide advanced telecommunications capabilities and services – including Internet access and Internet Protocol Television – the territorial restriction contained in Section 601 prohibits EPB from using the same fiber for delivery of advanced telecommunications services outside its electric service territory.¹²⁰

The petitioners further note that should the FCC preempt the territorial restriction, both EPB and the City of Wilson will follow all other requirements of the respective state statutes, including restrictions against cross subsidization, the need for a business case, and the requirement that they separately manage the financial aspects for their respective electric and advanced services businesses.

To further differentiate their legal arguments here from *Nixon*, both petitions argue that unlike the ambiguous term "any entity" in Section 253 of the Act, Section 706 provides a direct

¹¹⁸ Telecommunications Act of 1996, Pub. L. No. 104-104, §706(b), 110 Stat. 56,153; 47 U.S.C. § 1302(b)

¹¹⁹ City of Wilson Petition, WC Docket No. 14-115, at 44

¹²⁰ EPB Petition at 2. The North Carolina statute does not include the exception for telecommunications services.

requirement that the FCC ensure the rapid deployment of advanced services.¹²¹ The petitions allege the existence of Congressional intent for the FCC having “authority to preempt States that, in the [FCC’s] view, were not acting rapidly enough to ensure reasonable and timely [broadband] deployment.”¹²²

Finally, the petitions argue that FCC “preemption in this case would not affect any traditional or fundamental State power.”¹²³

C. State sovereignty, federalism, and other concerns

While it appears that broadband deployment is not proceeding apace, particularly in certain rural and high-cost areas, the power to enact laws regarding the welfare of its citizens rests with the states. The central question in the Wilson and EPB petitions to the FCC is whether a federal administrative agency like the FCC can use federal preemption to override the decision of a state government to enact a law governing the deployment and operations of municipal broadband and/or telecommunications networks in that state.

The deployment of municipal broadband networks and services brings into conflict the concept of state constitutional sovereignty with public policy goals that mandate such deployment on a national basis. The exercise of the FCC’s federal preemption powers over state statutes that restrict or otherwise control the deployment of municipal broadband networks in furtherance of national public policy goals is not without legal and political limits, especially when the relevant arguments become intertwined — perhaps unnecessarily — with the “net neutrality” debate.¹²⁴

Commenters on both sides of the equation have weighed in on this question, in many cases supporting the need for more broadband deployment, while at the same time questioning the legal ability of the FCC to override a state law that restricts or otherwise controls the deployment and the operations of municipal telecommunications or broadband networks.

AT&T’s comments reflect this dichotomy, citing the need to expand broadband in those pockets of the country where there is limited or no competition, but suggesting that existing FCC programs like the Connect America Fund (CAF) can provide this support without disrupting state laws.

¹²¹ City of Wilson Petition, WC Docket No. 14-115, at 51.

¹²² City of Wilson Petition, WC Docket No. 14-115, at 52 and n. 88 (citing Congressional Joint Conference Report on TA-96, Jan. 31, 1996)

¹²³ City of Wilson Petition, WC Docket No. 14-115, at 54 (distinguishing both *Nixon* and *Gregory v. Ashcroft*, 501 U.S. 452, 111 S.Ct. 2395. *Nixon* summarizes the FCC’s reliance on *Gregory v. Ashcroft* to the effect “that Congress needs to be clear before it constrains traditional state authority to order its government.” *Nixon v. Missouri Municipal League*, 124 S.Ct. 1555, 1556

¹²⁴ Pilalis, Labros, Municipal Broadband, Some Intertwined Issues, email correspondence with the author, August 17, 2013. Mr. Pilalis’ statements are his own and do not reflect the official position of the Pennsylvania PUC.

AT&T shares petitioners' desire to ensure that all Americans, including, but not limited to, those living in and around Chattanooga and Wilson, have access to world class broadband infrastructure. AT&T is skeptical, however, as to whether government owned networks (GONs) will help advance that goal. Although AT&T does not necessarily oppose the use of GONs in areas where advanced infrastructure has not been, and is not likely to be, reasonably and timely deployed, we believe there are better and more effective ways of spurring broadband deployment in these areas, including through the FCC's Connect America Fund (CAF).¹²⁵

Other commenters support an FCC decision to override state statutes as a means of bringing broadband to unserved areas more rapidly. The Institute for Local Self-Reliance defines the question in these petitions as a conflict between local governments and state governments, rather than as a federalism issue.

Restoring authority to local governments, so they may decide for themselves if a municipal investment or partnership is an appropriate way to expand high speed Internet access, will result in a more rapid deployment of high speed Internet access.¹²⁶

NARUC's comments in this same matter support the traditional view of state sovereignty.

We join the respectful request filed by other State government organizations - the National Governor's Association, the National Conference of State Legislators, and the National Council of State Governments – that the FCC “honor the established relationship between a State and its constitutionally and statutorily created political subdivisions, and deny the petitions from the Electric Power Board of Chattanooga, Tennessee, and the City of Wilson, North Carolina.”¹²⁷

Regardless of the FCC's decision in the Wilson and Chattanooga proceedings, the debate over expanding broadband throughout the country will continue.

V. Conclusions and Recommendations

¹²⁵ Comments of AT&T, Inc., WC Docket 14-115 (Wilson) and WC Docket 14-116 (Chattanooga), available at <http://apps.fcc.gov/ecfs/document/view?id=7521825939> AT&T's comments support the need for the "municipal broadband conditions" discussed earlier in this paper, including the right of first refusal for commercial service providers.

¹²⁶ Comments of the Institute for Local Self-Reliance, Common Cause, Center for Media Justice, Media Mobilizing Project, National Hispanic Media Coalition, Public Knowledge, Writers Guild of America, West, Benton Foundation, The Utility Reform Network (Turn), Hon. Tommy Wells, Hon. David Grosso, WC Docket 14-115 (Wilson) and WC Docket 14-116 (Chattanooga), available at <http://apps.fcc.gov/ecfs/document/view?id=7521825821>

¹²⁷ Comments of the National Association of State Regulatory Utility Commissioners, WC Docket 14-115 (Wilson) and WC Docket 14-116 (Chattanooga)

All parties in the debate over municipal broadband agree we must find a way bring broadband connectivity to all areas of the country. They also agree that closing the gap between those with and those without access will require the support of both private industry and government. The real questions are what conditions should be put in place to ensure a level playing field, the way in which the relevant costs for building these networks will be assigned, and the ultimate affect these decisions will have on investment and competition. It is clear that municipal broadband is one of the options states can use to ensure that their citizens can participate in the new economy made possible by broadband access. What is not clear is how states, municipalities, and private industry can work together to make this goal a reality.

This section provides some suggestions for merging those two points of view.

A. Municipal networks can fill in the gaps in broadband coverage

Could municipal networks become the broadband carriers of last resort for the 21st century? As networks transition to IP services and states remove public utility commission oversight of the companies that provide these networks and services, could municipal installations fill in the gaps in coverage and create a universally available broadband system akin to the current public switched telecommunications network? These are the key questions legislators and regulators should consider going forward.

As the examples of Lafayette, Louisiana and Wilson, North Carolina (to name just two cities with effective broadband networks), and the plans proposed by Leverett, Massachusetts, Syracuse, New York and the Connecticut consortium of cities show, municipalities can take the lead in bringing broadband to unserved and underserved areas. Although this option is constrained in some states by a requirement to "prove" that an area is unserved, it provides municipalities with the ability to meet the needs of their citizens where private suppliers will not or cannot do so.

FCC Chairman Tom Wheeler pointed out the importance of support for municipal networks as both a means to provide citizens with the basic services required for participation in commerce, education, and health as the nation transitions to Internet Protocol based networks and as a catalyst for competition in an October 1, 2014 speech to the National Association of Telecommunications Officers and Advisors (NATOA).

Many local communities have stepped up to facilitate [competition] where the private sector has not. Communities are listening to the needs of their citizens and enterprises, engaging community stakeholders, and focusing on delivering competitive broadband services to respond to those needs . . . I do encourage you to consider how local choice and competition can increase the broadband opportunities for your citizens.¹²⁸

¹²⁸ Remarks of FCC Chairman Tom Wheeler, National Association of Telecommunications Officers and Advisors, October 1, 2014, available at <http://www.fcc.gov/document/remarks-fcc-chairman-tom-wheeler-natoa-annual-conference> NATOA is a local government professional association that provides support to its members on the many local, state, and federal communications laws,

B. The right conditions can ensure success

Municipal broadband projects, like commercial enterprises, require advance planning and careful execution. Although some supporters of municipal broadband networks argue that requiring these projects to meet the same business goals as those imposed on private industry raises costs and introduces unnecessary delay, good business planning and a focus on community involvement are important to create a successful service.

1. Business plan

The success of municipal electric and water utilities makes it clear that municipalities have the business expertise required for a successful enterprise; they need only apply this expertise to the communications market. Municipalities and municipal utilities considering building broadband networks should focus on business planning from the outset. The plans should include all costs and projected revenues, as well as contingency plans for cost overruns and service subscription shortfalls.

The four and five year financial breakeven analyses required by Florida and Utah are stringent but provide an incentive for municipalities to study the market in detail and consider when the project will become profitable – if at all. Revenue should cover costs, even for municipal projects.

2. Community support

Citizen support is crucial to any project, but it is particularly critical for municipal broadband. Potential system users should be involved from the beginning, reviewing and approving plans, pricing, and potential products. Just as Google solicits early subscribers for its Google Fiber projects, municipalities need to do the same in order to ensure that customer take rates meet expectations.

The experience of Leverett, Massachusetts is instructive.

Early on, Leverett's governing body recognized the importance of high-speed internet access and the significant improvement it would make in the lives of [the town's] citizens. The Select Board [Town Council] was able to harness the skills and expertise of the greater Leverett community by appointing a highly skilled [team] . . . Together [they] envisioned the possibilities of municipal broadband access and were instrumental in making that vision a reality.¹²⁹

administrative rulings, judicial decisions, and technology issues impacting the interests of local governments.

¹²⁹ Crawford, Susan and Robyn Mohr, Bringing Municipal High-Speed Internet Access to Leverett, Massachusetts, Research Publication No. 26, The Berkman Center for Internet & Society Research Publication Series. December 17, 2013, available at http://cyber.law.harvard.edu/publications/2013/internet_to_leverett

Of course, referendums and public planning discussions are a double-edged sword. On the one hand, when managed properly, they can ensure community support. On the other hand, they provide detractors with the opportunity to question the need for the project or create unnecessary roadblocks. Legislators need to be aware of this dichotomy as they enact new legislation or revise existing statutes.

While conditions calling for referendums can be positive in the long run, the referendums must be structured so that citizens truly understand the contours of the project and are not unnecessarily swayed by lobbying campaigns from those that simply want to delay broadband expansion. For this reason, these legislatures may want to revisit the condition allowing private concerns to exercise a right of first refusal on municipal networks, even those planned for unserved or underserved areas.

As the need for faster broadband networks grows, state legislatures may also consider reviewing the definition of "unserved" areas, particularly in those instances where state law prohibits municipal network deployments outside of unserved areas. As Chairman Wheeler pointed out in a September speech, "a 25 Mbps connection is fast becoming "table stakes" in 21st century communications."¹³⁰

By reviewing, and when necessary modifying, the definition of unserved areas, state legislators can ensure that municipal broadband can become the broadband carrier of last resort for the digital age.

3. Service limitations

It is difficult to assess the effect of service territory limitations on municipal broadband deployment. Clearly, successful businesses like the municipal systems in Chattanooga and Wilson will want to expand, both to enhance their business opportunities and to bring service to willing customers. Such expansions are not without cost, however, both in terms of infrastructure and the potential dilution of the management focus that created the success in the first place.

The ultimate decision regarding broadband deployment will rest with state legislators. As states wrestle with the questions of broadband expansion, carrier of last resort, and bringing service to unserved and underserved areas, they may want to consider municipal networks as one way of increasing service availability.

There is no simple formula for deciding whether a municipal broadband installation will succeed or fail.

¹³⁰ Prepared Remarks of FCC Chairman Tom Wheeler, The Facts and Future of Broadband Competition, September 4, 2014, available at <http://www.fcc.gov/document/chairman-remarks-facts-and-future-broadband-competition>

Each project takes a slightly different approach, depending on the legal and political landscape, the availability of financing, the interest of potential partners and the skills and assets public agencies possess. Communities have many options and should explore as many of them as possible before committing to a plan or deciding that public broadband is not for them.¹³¹

As this paper has pointed out, states and municipalities have chosen different regulatory and business models, some leading to success and others leading to costly failures. Those municipal networks that have succeeded have brought service to areas that would otherwise have remained unserved, benefiting both their direct constituents and, ultimately, the country as a whole. Successful networks are in the public interest and the lessons they teach should drive future legislation and regulation.

¹³¹ Zager, Masha, Number of Community FTTP Networks Reaches 143, Broadband Communities, August 14, 2014, available at http://www.bbpmag.com/2014mags/Aug_Sep/BBC_Aug14_CommunityNetworks.pdf

Bibliography

- AT&T, Inc., Comments, WC Docket 14-115 (Wilson) and WC Docket 14-116 (Chattanooga), available at <http://apps.fcc.gov/ecfs/document/view?id=7521825939>
- American Legislative Exchange Council, Municipal Telecommunications Private Industry Safeguards Act, available at <http://www.alec.org/model-legislation/municipal-telecommunications-private-industry-safeguards-act/>
- Arkansas Code, Section 23-18-804. Ownership and operation of broadband system, available at <http://law.justia.com/codes/arkansas/2010/title-23/subtitle-1/chapter-18/subchapter-8/23-18-804>
- Bode, Karl, Connecticut Tries to Do Something about State's Poor Broadband, DSL Reports, September 16, 2014, available at <http://www.dslreports.com/shownews/Connecticut-Tries-to-Do-Something-About-States-Poor-Broadband-130475>
- Buckley, Sean, Syracuse wants to bypass Verizon, TWC with its own fiber broadband network, Fierce Telecom, August 15, 2014, available at <http://www.fiercetelecom.com/story/syracuse-wants-bypass-verizon-twc-its-own-fiber-broadband-network/2014-08-15>
- BVU Optinet, About Us, available at http://www.bvu-optinet.com/templates/default.php?purl=about_us_history&turl=inside_3col_std_template.htm
- Bylund, Anders, AT&T's High Speed Internet is Cheap in Austin for a Reason, The Motley Fool, December 12, 2013, available at <http://www.fool.com/investing/general/2013/12/12/atts-high-speed-internet-in-austin-is-cheap-for-a.aspx>
- California Government Code, Section 61100-61107, available at www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=61001-62000&file=61100-61107
- Christensen, Adam, 'Wi-Fi'ght Them When You Can Join Them? How the Philadelphia Compromise May Have Saved Municipally-Owned Telecommunications Services, Federal Communications Law Journal, Vol. 58, Iss. 3 (6-1-2006), available at <http://www.repository.law.indiana.edu/fclj/vol58/iss3/22>
- Code of Virginia, § 15.2-2160. Provision of telecommunications services, available at <http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+15.2-2160>
- Colorado Senate Bill 152 (2005), Competition in Utility and Entertainment Services, available at <http://faircompetitionalliance.com/legal-resources/colorado/colorado-statute-in-full/>
- ConnectCC, About Us, available at <http://www.connectcc.com/aboutconnect.html>
- Crawford, Susan and Robyn Mohr, Bringing Municipal High-Speed Internet Access to Leverett, Massachusetts, Research Publication No. 26, The Berkman Center for Internet & Society

Research Publication Series. December 17, 2013, available at
http://cyber.law.harvard.edu/publications/2013/internet_to_leverett

Dunne, Matthew, Let My People Go (Online): The Power of the FCC to Preempt State Laws That Prohibit Municipal Broadband, *Columbia Law Review*, Vol. 107, No. 5 (Jun., 2007), pp. 1126-1163, available at <http://www.jstor.org/stable/40041745>

Federal Communications Commission, Connecting America, The National Broadband Plan, available at <http://www.fcc.gov/national-broadband-plan>

____ Prepared Remarks of FCC Chairman Tom Wheeler, The Facts and Future of Broadband Competition, September 4, 2014, available at <http://www.fcc.gov/document/chairman-remarks-facts-and-future-broadband-competition>

____ Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket 14-126, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-113A1.pdf

____ In the Matter of Petition of Electric Power Board of Chattanooga, Tennessee, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, WCB Docket 14-116

____ In the Matter of Petition of City of Wilson, North Carolina, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, WCB Docket 14-115

____ Remarks of FCC Chairman Tom Wheeler, National Association of Telecommunications Officers and Advisors, October 1, 2014, available at <http://www.fcc.gov/document/remarks-fcc-chairman-tom-wheeler-natoa-annual-conference>

Florida Statutes §§ 125.421, 166.047, 196.012, 199.183 and 212.08;
<http://www.flsenate.gov/Laws/Statutes/2012/350.81>

____ 350.81, Communications Services Offered by Government Entities, available at <http://www.flsenate.gov/Laws/Statutes/2012/350.81>

Feld, Harold, Gregory Rose, Mark Cooper, Ben Scott, Connecting the Public: The Truth About Municipal Broadband, Media Access Project, Consumer Federation of America, Freepress, April, 2005, available at http://www.freepress.net/sites/default/files/fp-legacy/mb_white_paper.pdf

Ford, George, Does Municipal Supply of Communications Crowd-Out Private Communications Investment? An Empirical Study, *Energy Economics*, February, 2005, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=925970

____ Do Municipal Networks Offer More Attractive Service Offerings than Private Sector Providers? A Review and Expansion of the Evidence, January 27, 2014, The Phoenix Center

for Advanced Legal & Economic Public Policy Studies, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2407148

Fuhr, Joseph P., Jr, Ph.D., The Hidden Problems of Government Owned Networks, Coalition for the New Economy, available at <http://www.coalitionfortheneweconomy.org/wp-content/uploads/2012/01/1-6-12-Coalition-for-a-New-Economy-White-Paper.pdf>

Georgia House Bill 282, The Municipal Broadband Investment Act, available at <http://legiscan.com/GA/comments/HB282/2013>

Harris, Jesse, Understanding UTOPIA, Macquarie, and the options open to cities, Utah Politico, June 27, 2014, available at <http://utahpoliticohub.com/understanding-utopia-macquarie-and-the-options-open-to-cities/>

Hawaii Act 133 (SB 981) available at <http://legiscan.com/HI/text/SB2981/2014>

Hinton, Cary, District of Columbia rules for municipal networks, email, 7/31/2014

Hometown Utilicom Broadband Services, Borough of Kutztown, PA, available at http://www.kutztownboro.org/kutztown/departments/telecom/uploads/HomeNetJan14handout_web.pdf

Hummell, Jon, Interim Director of the Budget, Kansas Division of the Budget, Fiscal Note for SB 304 by Senate Committee on Commerce, available at http://kslegislature.org/li/b2013_14/measures/documents/fisc_note_sb304_00_0000.pdf

National Association of State Regulatory Utility Commissioners, Comments, WC Docket 14-115 (Wilson) and WC Docket 14-116 (Chattanooga)

Iowa Association of Municipal Utilities, website, available at <http://www.iamu.org/>

Institute for Local Self-Reliance, Common Cause. Center for Media Justice, Media Mobilizing Project, National Hispanic Media Coalition, Public Knowledge, Writers Guild of America, West, Benton Foundation, The Utility Reform Network (Turn), Hon. Tommy Wells, Hon. David Grosso, Comments, WC Docket 14-115 (Wilson) and WC Docket 14-116 (Chattanooga), available at <http://apps.fcc.gov/ecfs/document/view?id=7521825821>

Iowa Code, §388.10, Municipal utility providing telecommunications services, available at <http://law.justia.com/codes/iowa/2014/title-ix/subtitle-4/chapter-388/section-388.10/>

Kansas legislative bill SB 304, available at http://kslegislature.org/li/b2013_14/measures/documents/sb304_00_0000.pdf

Lennett, Ben, Patrick Lucey, Joanne Hovis, and Andrew Afflerbach, The Art of the Possible: An Overview of Public Broadband Options, New America Foundation, available at http://newamerica.net/sites/newamerica.net/files/policydocs/TheArtofthePossible-OverviewofPublicBroadbandOptions_NAFOTI-CTC.pdf

Liberty Voice, Google Fiber: Portland Vision May Bring Gigabit Broadband to City, 6/18/2014, available at <http://guardianlv.com/2014/06/google-fiber-portland-vision-may-bring-gigabit-broadband-to-city-video/#1wzg1PIg8ptGxTHe.99><http://guardianlv.com/2014/06/google-fiber-portland-vision-may-bring-gigabit-broadband-to-city-video/>

LUS Fiber, Homepage, available at <http://www.lusfiber.com/>

LUS Fiber, Response to Mr. Steven Titch, 'Lessons in Municipal Broadband from Lafayette Louisiana,' available at <http://www.lusfiber.com/docs/LUSFiberResponse-TitchArticle.pdf>

Massachusetts General Laws, c. 164, §§ 34, 47C and 47E

Minnesota Statute 237.19, Municipal Telecommunications Services, available at <https://www.revisor.mn.gov/statutes/?id=237.19>

Missouri Revised Statutes Ch 392 §410, available at <http://www.moga.mo.gov/statutes/C300-399/3920000410.HTM>

Mississippi House Bill 489, available at <http://legiscan.com/MS/text/HB489/id/929617/Mississippi-2014-HB489-Introduced.html>

Mitchell, Christopher, Learning from Burlington Telecom, Institute for Local Self-Reliance, August, 2011, available at <http://www.muninetworks.org/sites/www.muninetworks.org/files/bt-lessons-learned.pdf>

Montana Code Annotated (2013), Section 2-17-601, available at <http://leg.mt.gov/bills/mca/2/17/2-17-602.htm>

_____ Section 2-17-603, available at <http://leg.mt.gov/bills/mca/2/17/2-17-603.htm>

Neagle, Colin, 10 Cities That Provide 1-Gig Internet Services, Network World, 2/26/14, available at <http://www.networkworld.com/article/2174701/lan-wan/10-cities-that-provide-1-gig-internet-services.html?nsdr=true>

Nebraska Broadband Services Final Report, 11/22/2006, available at <http://nitc.ne.gov/documents/BSTF%20-%20Final%20Report%2011-22-06.pdf>

Nebraska Legislative Bill 645 (2005), available at <http://www.legislature.ne.gov/FloorDocs/99/PDF/Final/LB645.pdf>

Nebraska Revised Statute 86-594. Agency or political subdivision of state; limitation on power, available at <http://nebraskalegislature.gov/laws/statutes.php?statute=86-594&print=true>

Nebraska Revised Statute 86-595. Public power supplier; limitation on retail services, available at <http://nebraskalegislature.gov/laws/statutes.php?statute=86-595&print=true>

Nevada Revised Statutes § 710.147 (2013), available at <http://law.justia.com/codes/nevada/2013/chapter-710/statute-710.147>

New Hampshire House Bill 286, available at <http://legiscan.com/NH/text/HB286/2014>

Nixon v. Missouri Municipal League et al., 541 U.S. 125, 135, 124 S. Ct. 1555, 1562, 158 L. Ed. 2d 291 (2004)

North Carolina House Bill 129, An Act to Protect Jobs and Investment by Regulating Local Government Competition with Private Business (Session Law 2011-84), available at <http://www.ncga.state.nc.us/sessions/2011/Bills/House/PDF/H129v7.pdf>

Null, Eric, Municipal Broadband: History's Guide (October 9, 2012), I/S: A Journal of Law and Public Policy Volume 9, p.21, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1978220

Pennsylvania Public Utility Code, Section 3014(h) Ch 30, Title 66

Pilalis, Labros, Municipal Broadband, Some Intertwined Issues, email correspondence with the author, 8/17/2014

Public Utility Commission of Texas, Rulemaking to Amend PUC Subst. R. §26.111 as Required by Provisions of HB 1600 (83rd Regular Legislative Session) Relating To Certificate of Operating Authority (COA) and Service Provider of Operating Authority (SPCOA) Criteria, available at http://interchange.puc.state.tx.us/WebApp/Interchange/Documents/41612_1_760031.PDF

Roop, Lee, 7 Things Chattanooga Says to Huntsville About Adding High Speed Internet, AL. Com, June 14, 2014, available at http://www.al.com/news/huntsville/index.ssf/2014/06/7_things_chattanooga_says_to_h.html

Schatz, Thomas and Royce Van Tassell, Municipal Broadband Is No Utopia, Wall Street Journal, June 19, 2014, available at <http://online.wsj.com/articles/municipal-broadband-is-no-utopia-1403220660>

South Carolina Statutes, Title 58, Section 9-2600, Government owned communications service providers; available at <http://www.scstatehouse.gov/code/t58c009.php>

Stricker, Jeff, Casting a Wider 'Net': How and Why State Laws Restricting Municipal Broadband Networks Must Be Modified, 81 GEO. WASH. L. R. 589, 600-601 (Feb. 2013), available at <http://connection.ebscohost.com/c/articles/86286608/casting-wider-net-how-why-state-laws-restricting-municipal-broadband-networks-must-be-modified>

Telecommunications Act of 1996, Pub. L, No. 104-104, §706(b), 110 Stat. 56,153

Tennessee Code 7-52-401, Authority with relations to telecommunications equipment and services, available at <http://law.justia.com/codes/tennessee/2010/title-7/chapter-52/part-4/7-52-401/>

Tennessee House Bill 2562, available at
<http://legiscan.com/TN/text/SB2562/id/948956/Tennessee-2013-SB2562-Draft.pdf>

Texas Utilities Code, available at
<http://www.statutes.legis.state.tx.us/Docs/SDocs/UTILITIESCODE.pdf>

Titch, Stephen, Lessons in Municipal Broadband from Lafayette, Louisiana, The Reason Foundation, 2013, available at http://reason.org/files/municipal_broadband_lafayette.pdf

Utah Legislative Auditor General, Performance Audit of the Utah Telecommunication Open Infrastructure Agency, Report No. 2012-08, available at http://le.utah.gov/audit/12_08rpt.pdf

Utah House Bill 60, Interlocal Entity Service Prohibition, available at
<http://le.utah.gov/~2014/bills/hbillint/HB0060.pdf>

Utah Municipal Code Title 10, Chapter 18, Section 203; available at
http://www.le.utah.gov/code/TITLE10/htm/10_18_020300.htm

Verizon v. FCC, 740 F.3d 623 (DC Cir., 2014), 2014 U.S. App. LEXIS 680, available at
[http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/\\$file/11-1355-1474943.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf)

Washington House Bill 1711 (2011 and 2012), available at
<http://legiscan.com/WA/text/HB1711/id/83658/Washington-2011-HB1711-Introduced.pdf>

Washington RCW 54.16.330 Telecommunications facilities - Purposes - Limitations - Provision of wholesale telecommunications services - Eminent domain, available at
<http://app.leg.wa.gov/rcw/default.aspx?cite=54.16.330>

Whatever Happened to Municipal Wi-Fi, the Economist, 6/26/2013, available at
<http://www.economist.com/blogs/babbage/2013/07/wireless-networks#comments>

Wisconsin Statute 66.0422, Video service, Telecommunications, and Broadband Facilities, available at <http://docs.legis.wisconsin.gov/statutes/statutes/66/IV/0422/3n>

Wyoming Statute 37-1-101(a)(vi) and 37-15-413, available at
<http://law.justia.com/codes/wyoming/2013/title-37/>

Zager, Masha, Number of Municipal FTTP Networks Climbs to 135, Broadband Communities, May/June 2013, available at http://www.bbpmag.com/2013mags/may-june/BBC_May13_MunicipalNetworks.pdf

Zager, Masha, Number of Community FTTP Networks Reaches 143, Broadband Communities, August 14, 2014, available at
http://www.bbpmag.com/2014mags/Aug_Sep/BBC_Aug14_CommunityNetworks.pdf

Appendix

State	Municipal Broadband Allowed	State Statute	Requirements
AL	With conditions	AL Code 11-50B; http://alisondb.legislature.state.al.us/acas/ACA_SLoginFire.asp , 2000 Alabama Laws Act 2000-614 (S.B. 464)	Municipal utilities may provide broadband; may not use local funds to pay expenses; municipalities must conduct a referendum prior to providing service
AK	Y	AS 42.05.221, AS 42.05.711(b), AS 42.05.990(6), AS 42.05.990(13). Regulate public utilities and facilities.	Public utilities providing telecommunications service that are owned and operated by a political subdivision are exempt from rate/economic regulation unless they elect to be subject to it (AS 42.05.711(b)). The Commission has jurisdiction over the facilities of any political subdivision to the extent those facilities are used to provide regulated intrastate services, even if the facilities are also used to provide federally regulated or non-regulated services.
AR	Y (broadband only)	§ 23-18-804. Ownership and operation of broadband system;	Broadband only, no local exchange svc. a) An electric utility may: (1) Own or operate a broadband system on the electric utility's electric delivery system; (2) Allow an affiliate to own or operate a broadband system on the electric utility's electric delivery system; (3) Allow an unaffiliated entity to own or operate a broadband system on the electric utility's electric delivery system; (4) Provide broadband service, including without limitation, Internet service over a broadband system; and (5) Allow an affiliate or unaffiliated entity to provide broadband service, including without limitation, Internet service over a broadband system. (b) The electric utility shall determine which broadband Internet service providers may have access to broadband capacity on the broadband system.
AZ	Y	AZ Statute 41.3508	No restrictions on municipal broadband. Broadband providers must follow certification and other state rules.

State	Municipal Broadband Allowed	State Statute	Requirements
CA	Y - Until a private company offers service	Government Code Section 61100-61107 http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=61001-62000&file=61100-61107 ; 2008 Cal. Legis. Serv. Ch. 70 (S.B. 1191)	A community services district may construct, own, improve, maintain, and operate broadband facilities and provide broadband services, under specified circumstances, until a private person or entity is ready, willing, and able to acquire, construct, improve, maintain, and operate broadband facilities and to provide broadband services, and to sell those services at a comparable cost and quality of service to the district and its property owners, residents, and visitors.
CO	With conditions	29-27-102,103,201 & 202 C.R.S	1. Local gov may provide directly or indirectly through partnership; referendum req; may offer in unserved areas if no private provider has service; right of first refusal to private cos., written req to provider; may offer svc if private provider does not offer w/i 14 mons.
CT	Y	No specific statute prohibiting or granting municipal broadband authority	
DC	N	No specific statute	DC Net, a city network, provides services to DC government offices and wireless access in the city but is not available to residents in place of retail svcs.
DE	Y	26.4001 (http://regulations.delaware.gov/AdminCode/title26/4000/4001.shtml)	Municipalities not considered as "carriers" and do not require CPCNs to provide service

State	Municipal Broadband Allowed	State Statute	Requirements
FL	With conditions	Statutes §§ 125.421, 166.047, 196.012, 199.183 and 212.08; http://www.flstate.gov/Laws/Statutes/2012/350.81	Network must break even within 4 years. If network is not breaking even at that time, must consider shutting it down or soliciting a private concern to take over. 2 public hearings required prior to approval. Must notify all other suppliers. Must pay taxes equiv to private concerns. Certificate required to provide voice svc., no requirement for BB. Voice svc must follow PSC regs.
GA	Y	§ 46-5-163.	PUC must issue CPCN for new broadband providers
HI	Y	Section 226-6, Hawaii Revised Statutes	
ID	Y	No specific statutes authorizing or providing oversight.	
IL	Y (CPCN for voice)	IL St Ch 20 § 661/35; 2007 Ill. Legis. Serv. P.A. 95-684 (S.B. 766)	§ 35. Local broadband projects. Any municipality or county may undertake local broadband projects and the provision of services in connection therewith; may lease infrastructure that it owns or controls; may aggregate customers or demand for broadband services; may apply for and receive funds or technical assistance to undertake such projects to address the level of broadband access available to its businesses and residents.
IN	Y	Title 8-1-33, Broadband Development Program. https://iga.in.gov/static-documents/f/9/7/5/f975c208/TITLE8_title8.pdf	

State	Municipal Broadband Allowed	State Statute	Requirements
IA	With conditions	Iowa Code, Section 388.10 http://law.justia.com/codes/iowa/2011/titleix/subtitle4/chapter388/388-10	Cities may issue revenue bonds for municipal projects; city must not cross subsidize municipal svcs., must follow the same regulations as private providers.
KS	Y	No specific state statute	
KY	Y	96.531 Regulation of telecommunications services provided by municipal utility. (effective 1/1/2015) http://www.lrc.ky.gov/statutes/statute.aspx?id=43740	Any legislative body of any city may provide telecommunications service.
LA	With conditions	45.844.41 - 56; http://law.justia.com/codes/louisiana/2013/code-revisedstatutes/title-45/	Referendum, no subsidies
ME	Y		CPCN required for voice networks; no requirements for broadband
MD	Y		
MA	Y	M.G.L. c. 164, §§ 34, 47C and 47E.	Municipal lighting (electric) corporations may build telecom facilities, including broadband. The municipality may rent, lease, or sell for cash or credit at prevailing retail prices, install and service, within the territory served by such business, merchandise, equipment, utensils and chattels of any description which are incidental or auxiliary to the operation of said telecommunications system or the use of its customers or are necessary or expedient in the protection or management of its property used in such business.

State	Municipal Broadband Allowed	State Statute	Requirements
MI	Y	484.2252, Section 252 of MI Telecom Act	Municipality may construct, purchase or lease, and maintain facilities for the distribution or the operation of a telecommunications system; may incur debt for such facilities by a vote of the municipality.
MS	Y	No specific statute granting municipal broadband or telecom authority	HB 489 would have authorized municipalities with a median household income below two hundred percent (200%) of the federal poverty guideline to develop municipal broadband either alone or as public/private partnerships
MN	With conditions	237.19 Municipal Telecommunications Services (for telecom svcs only). No specific statute for broadband.	Referendum required. If creating a new company where there is a competitive carrier, municipality must get favorable vote of 65% of constituents. May purchase existing exchange.
MO	N (Municipal telecom, including VoIP, prohibited but not "internet-type" services.)	Ch 392 §410; http://www.moga.mo.gov/statutes/C300-399/3920000410.HTM	No political subdivision of this state shall provide or offer for sale, either to the public or to a telecommunications provider, a telecommunications service or telecommunications facility used to provide a telecommunications service for which a certificate of service authority is required. Nothing in this subsection shall restrict a political subdivision from providing telecommunications services or facilities [for] . . . Internet-type services.
MT	With conditions	MT Code 2-17-603. Government competition with private internet services providers prohibited with exceptions; http://leg.mt.gov/bills/mca/2/17/2-17-603.htm	An agency or political subdivision may act as an internet services provider if: (i) no private internet services provider is available within the jurisdiction served by the agency or political subdivision; or (ii) the agency or political subdivision provided services prior to July 1, 2001. (b) An agency or political subdivision may act as an internet services provider when providing advanced services that are not otherwise available from a private internet services provider within the jurisdiction served by the agency or political subdivision.

State	Municipal Broadband Allowed	State Statute	Requirements
NE	N	Neb. Rev. Stat. section 86-594; http://nebraskalegislature.gov/laws/statutes.php?statute=86-594	An agency or political subdivision of the state that is not a public power supplier shall not provide on a retail or wholesale basis any broadband services, Internet services, telecommunications services, or video services.
NV	N	NV Rev Stat § 710.147 (2013), http://law.justia.com/codes/nevada/2013/chapter-710/statute-710.147	Prohibits counties with >55,000 residents from selling telecommunications svcs to residents.
NH	With conditions	Title III, Ch 33.3, http://www.genecourt.state.nh.us/rsa/html/III/33/33-3.htm ; 38:30 - 41	Municipal bonds may be issued for broadband development in unserved areas. Public hearings required. Public benefit of public/private partnerships must outweigh private benefit.
NJ			
NM			
NY	Y	No specific statute prohibiting or granting municipal broadband authority	
NC	With conditions	HB 129 (2011), N.C.G.S. § 160A-340, www.ncga.state.nc.us/sessions/2011/Bills/House/PDF/H129v7.pdf	Referendum, financial review, svc. w/ municipal limits and only in unserved areas; PUC determines unserved areas; costs must follow same rules as competitors - cannot use costs of non-commercial lending/pricing
ND	Y	North Dakota Century Code Chapter 49-21 and Chapter 49-02	

State	Municipal Broadband Allowed	State Statute	Requirements
OH	Y	No specific statute prohibiting or granting municipal broadband authority	
OK	Y	No specific statute; broadband oversight prohibited under 17 O.S. §139.110	CPCN required for voice networks
OR	Y	No specific statute prohibiting or granting municipal broadband authority. OR is a home rule state, giving municipalities the authority to act according to their charters if not overruled by state or federal law.	CPCN required for networks that offer voice. Municipalities must follow commission rules for voice service.
PA	Under limited conditions by municipal utilities	Section 3014(h) Ch 30, Title 66 PA PUC Code; http://www.legis.state.pa.us/cfdocs/legis/LI/con sCheck.cfm?txtType=HTM&ttl=66&div=0&ch pt=30&sctn=14 &subscn=0	Political subdivision may not provide BB in the territory of ILEC. A political subdivision may provide BB if the subdivision has submitted a written request to the LEC and the LEC will not provide svc. If the LEC agrees to provide svc, must do so w/i 14 months or the request. Previous installations grandfathered. Political subdivisions that operate electric systems may offer CATV.
RI	Y		

State	Municipal Broadband Allowed	State Statute	Requirements
SC	With conditions	Title 58, Section 9-2600, Government owned communication s service providers; http://www.scstatehouse.gov/code/t58c009.php	Offer service in unserved areas; petition the state to designate unserved areas; residents or providers may petition the commission to declare an area no longer unserved by a competitive provider. Muni providers subject to same reqs as competitive providers, including taxes and other legal reqs. Subsidies not allowed.
SD	Y	SD Ch 9-41-1; http://legis.sd.gov/Statutes/Codified_Laws/DisplayStatute.aspx?Type=Statute&Statute=9-41-1	The municipality may issue bonds to pay for the telecommunications system. Bonds may require repayment from system revenues. The municipality must obtain PUC authorization to add surcharges to the customer bill.
TN	With conditions	Tenn. Code Ann. § 7-52-401, <i>et seq.</i> , Tenn. Code Ann. § 65-5-109 http://law.justia.com/codes/tennessee/2010/title-7/chapter-52/part-4/7-52-401/	Municipal electric cos may provide broadband service within their service territory only; must obtain a CPCN from the TRA in order to provide telecommunications services
TX	N	TX Utilities Code Sec. 54.201- 202, http://www.statutes.legis.state.tx.us/Docs/SDocs/UTILITIESCODE.pdf	Municipalities may not offer any service for which a CPCN is required, including switched and non-switched telecommunications services

State	Municipal Broadband Allowed	State Statute	Requirements
UT	With conditions	Utah Municipal Code §10-18-105; 10-18-201 - 305 http://www.le.utah.gov/code/TITLE10/html/10_18_010500.htm	May provide svc after public hearing, feasibility study (including 5-yr financial analysis), and determination that the project will be profitable. May have a referendum on the service. Feasibility study conducted by outside consultant. http://www.le.utah.gov/code/TITLE10/html/10_18_020200.htm
VT			
VA	Y (municipal utilities)	§ 15.2-2160. Provision of telecommunications services. http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+15.2-2160	Any locality that operates an electric distribution system may provide telecommunications services if it obtains a CPCN. Services may be provided where muni has electric distribution system facilities as of 3/1/2002. May extend telecommunications, Internet access, broadband, information, and data transmission services to localities within 75 miles of existing system.
WA	Wholesale only	WA Code 54.16.330 http://apps.leg.wa.gov/rcw/default.aspx?cite=54.16.330	A public utility district in existence on June 8, 2000, may construct, purchase, acquire, develop, finance, lease, license, handle, provide, add to, contract for, interconnect, alter, improve, repair, operate, and maintain any telecommunications facilities within or without the district's limits for the following purposes for internal use and to provide wholesale service.
WV	Y	WVA Code §24D-1-1 et seq.	Cable industry not regulated as a utility. PSC approves cable franchise agreements and retains authority over quality of service, availability, and pricing.
WI	With conditions	WI Statutes 66.0422, video service, telecommunications, and broadband facilities	Only where no competitive svc available. Public hearing, rpt on projected costs and revs., unserved areas may create muni systems after requesting info in writing from competitive cos to confirm that no one offers svc in the municipality; 9-mo window for private cos to build out;
WY	With conditions	Title 37, General Provisions, 37-1-101(a)(vi). W.S. 37-15-413	Allowed only where no competitive svc available; must petition private firms to provide svc; if no response in 90 days, may go forward. Public hearing. Svc price must cover all costs, including imputed costs that would have been incurred if municipality were a private firm.