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# Municipal Broadband: Background and Policy Debate

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# Summary

Since the late 1990s, broadband Internet service has been deployed in the United States, primarily by private sector providers. While broadband deployment has been rapid and robust overall, there remain communities that are dissatisfied with their broadband service. Some of these communities have turned to public entities as possible broadband providers, with the expectation that municipal broadband networks (also referred to as "community broadband") can deliver superior levels of speed, performance, and/or affordability than what is currently offered by private providers. Public entities that provide broadband service can be local governments or public utilities, for example, and may construct and manage broadband networks either solely or in partnership with private companies. There are a number of municipal broadband models that have been implemented across the nation. Since each community is different and each faces unique challenges, there is no one size that fits all.

Municipal broadband is controversial, because it involves governmental entities entering a commercial telecommunications marketplace that had previously been the exclusive domain of private sector providers. Supporters of municipal broadband argue that in view of substandard broadband service, communities and local governments should be able to provide this service to meet their citizens' needs and to support the community's economic development. Municipal broadband opponents argue that public entities are ill-equipped to efficiently develop, operate, and maintain commercial broadband networks, and that municipally owned and supported broadband networks constitute unfair competition to private sector providers, which may ultimately impede private investment in broadband infrastructure.

With under 500 municipalities across the nation embarking on some form of municipal broadband, 20 states have passed laws placing restrictions (or in some cases, bans) on local broadband networks. The issue for Congress is whether municipal broadband should be promoted or discouraged, and more specifically, whether those state restrictions on municipal broadband should be overridden or affirmed.

On March 12, 2015, the Federal Communications Commission (FCC) released a Memorandum Opinion and Order granting the petitions filed by two municipal broadband providers in Wilson, NC, and Chattanooga, TN, to preempt state laws in their respective states that restricted the expansion of community broadband services. The Order and the decision by the FCC to rely on Section 706 of the 1996 Telecommunications Act for its authority remain controversial. Both states filed petitions for review consolidated in the U.S. Court of Appeals, 6th Circuit, Cincinnati, challenging the FCC's authority to preempt these restrictions. The court, in an August 10, 2016, decision, reversed the FCC's Order.

Four bills (S. 240, S. 597, H.R. 1106, and H.R. 6013) were introduced and one draft measure was released in the 114th Congress addressing the municipal broadband debate, but none of these measures were enacted. The role of municipal broadband and the appropriate role of the states and the FCC to address the relationship between the public and private sector is just one facet in the overall debate regarding broadband deployment. Whether municipal broadband should be encouraged or restricted is one of the many policies that Congress continues to consider.

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# Background

Broadband—also referred to as high-speed Internet service—has been deployed in the United States since the late 1990s, primarily by private sector providers. These providers include telephone companies, cable companies, wireless providers, and other entities that provide commercial telecommunications services to residential, business, and institutional customers.

While broadband deployment has been rapid and robust overall, there are parts of the nation where broadband is less deployed (primarily rural areas) and there remain regions and communities that are dissatisfied with the level of broadband service currently offered by private sector providers. These communities point to problems ranging from low download and upload speeds, obsolete technology, poor reliability, high prices, and/or a lack of choice in providers. With the Federal Communications Commission (FCC) moving to define the minimum speed of broadband at 25 Mbps,[1] more communities may perceive a lack of adequate broadband service, especially those communities in rural areas.

As a solution, some communities have turned to public entities as possible broadband providers. These communities anticipate that public entities may be able to provide municipal broadband at superior levels of speed, performance, and affordability than what is currently offered by private providers. Public entities that provide broadband service can be local governments or public utilities, for example, and may construct and manage broadband networks either solely or in partnership with private companies. There are a number of municipal broadband models that have been implemented across the nation. Since each community is different and each faces unique challenges, there is no one size that fits all.

Municipal broadband (also sometimes referred to as "community broadband") is a somewhat amorphous term that can signify many different ways that a local government might participate—either directly or indirectly—in the provision of broadband service to the local community. Municipal broadband models can include public ownership, public-private partnership, and a cooperative model.

With *public ownership*, the local government is the principal entity building, financing, and operating the broadband network. The network can be run by the local municipal electric utility (Chattanooga, TN, and Lafayette, LA, are examples), or it can be run by a city department such as the information technology (IT) department (as in Santa Monica, CA). There are also instances where a publicly owned and built network might be opened to private providers to provide retail Internet access or other services to the public.[2]

*Public-private partnerships* can come in many different forms, from public and private sector entities sharing capital and operations costs, to governments providing access to public rights-of-way or other city infrastructure (e.g., conduits, pole attachments) for privately funded and operated networks, to government-funded projects contracting with private providers to build, operate, and/or maintain the network. Partners can include private for-profit companies, local nonprofits, and even local residents.[3]

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[1] See Federal Communications Commission, *2015 Broadband Progress Report*, available at https://www.fcc.gov/reports/2015-broadband-progress-report.

[2] New America Foundation, *The Art of the Possible: An Overview of Public Broadband Options*, May 6, 2014, p. 8, available at https://static.newamerica.org/attachments/197-the-art-of-the-possible-an-overview-of-public-broadband-options/TheArtofthePossible-OverviewofPublicBroadbandOptions_NAFOTI-CTC.pdf.

[3] Ibid., p. 10.

Finally, there is a *cooperative model*, which refers to electric and telephone cooperatives, many of which were originally created during rural electrification in the 1930s. These cooperatives, in rural areas, have begun in some instances to provide broadband service. Many of the cooperatives providing broadband service have received or are eligible for federal loan and grant support from the Rural Utilities Service (RUS) of the U.S. Department of Agriculture (USDA). There are also a few cooperatives that have been recently formed specifically for providing broadband service. These typically rely on support from local governments and include the East Central Vermont Community Fiber Network (ECFiber) and the WiredWest project in western Massachusetts.[4]

Aside from the models of how municipal broadband networks are governed, the nature of broadband service offered by municipal broadband networks can vary. Municipal networks

- may provide wholesale service ("middle-mile" infrastructure, where retail providers connect into the municipal network), "last mile" retail service directly to customers, or both;
- may provide service solely to anchor institutions or also include businesses and residences;
- may serve solely within municipal boundaries or may be extended to surrounding municipalities and counties;
- may provide data or data bundled with video and/or voice, or may include smart grid capacity; and
- while most recent and proposed municipal broadband projects utilize fiber infrastructure, other broadband technologies such as wireless or cable have also been deployed.

# Municipal Broadband Networks in the United States

Municipal broadband networks tend to be established in small and mid-sized communities, often located in rural areas. With some exceptions, municipal broadband networks are typically not located in major metropolitan areas, where many private providers already offer broadband service.

The Institute for Local Self-Reliance (ILSR) lists 492 U.S. municipalities with broadband networks. The complete list is included in the appendix of the January 2015 White House report *Community-Based Broadband Solutions: The Benefits of Competition and Choice for Community Development and Highspeed Internet Access*.[5] This includes 89 communities with a publicly owned fiber to the home (FTTH) network reaching most or all of the community, 76 communities with a publicly owned cable network reaching most or all of the community, over 180 communities with some publicly owned fiber service available to parts of the community, over

[4] Ibid., pp. 12-13.

[5] Executive Office of the President, Community-Based Broadband Solutions: The Benefits of Competition and Choice for Community Development and Highspeed Internet Access, January 2015, pp. 20-33, available at http://www.whitehouse.gov/sites/default/files/docs/community-based_broadband_report_by_executive_office_of_the_president.pdf.

110 communities with publicly owned dark fiber available, and over 40 communities in 13 states with a publicly owned network offering at least 1 gigabit services.[6]

The magazine *Broadband Communities* lists 143 public and public-private fiber to the premises (FTTP) network projects.[7] This list identifies community fiber systems in 37 states and in American Samoa. The largest numbers of deployments are in Washington (13), Kentucky (11), Minnesota (10), Tennessee (8), Iowa (8), Illinois (7), and Florida (7).[8]

# Policy Debate: Pros and Cons

The virtues and drawbacks of municipal broadband have been vigorously debated by policymakers and other stakeholders.[9] Advocates for municipal broadband include groups aligned with local communities, while opponents include private sector incumbent broadband providers and state governmental entities.

## Arguments in Favor of Municipal Broadband

The primary argument in favor of municipal broadband is rooted in the dissatisfaction of some communities with existing broadband service that is offered by private providers. Many local communities cite low speeds, high prices, a lack of competition, or even an absence of any broadband service in particularly sparsely populated areas, and argue that they should be able to provide this service to meet their citizens' needs and to support the community's economic development. Pro-municipal broadband arguments include

- Municipal broadband can enable small and mid-sized municipalities, often in rural areas, to offer higher download and upload speeds. This is especially important given that the FCC continues to identify a persistent "digital divide" between rural areas (where 53% of Americans do not have broadband speeds of at least 25 Mbps download/3 Mbps upload)[10] and urban areas (where only 8% do not have access to those speeds).[11] Overall, 16% of American households are in areas without a single provider of 25 Mbps/3 Mbps fixed services.[12]

[6] Institute for Local Self-Reliance, "Community Network Map," updated January 2015, available at http://www.muninetworks.org/communitymap.

[7] Zager, Masha, "Number of Community FTTP Networks Reaches 143," *Broadband Communities*, August/September 2014, pp. 10-22, available at http://www.bbpmag.com/.http://www.bbpmag.com/2014mags/Aug_Sep/BBC_Aug14_CommunityNetworks.pdf.

[8] Ibid., p. 14.

[9] Reports supporting municipal broadband include Executive Office of the President, *Community-Based Broadband Solutions: The Benefits of Competition and Choice for Community Development and Highspeed Internet Access*, January 2015; and New America Foundation, *The Art of the Possible: An Overview of Public Broadband Options*, May 6, 2014. Reports opposing municipal broadband include Advanced Communications Law & Policy Institute, New York Law School, *Understanding the Debate over Government-Owned Networks*, June 2014; and Coalition for the New Economy, *The Hidden Problems with Government-Owned Networks*, January 6, 2012.

[10] In its *2015 Broadband Progress Report*, the FCC raised its broadband speed benchmark from 4 Mbps (download)/1 Mbps (upload) to 25 Mbps/3 Mbps. This benchmark speed upgrade is controversial. The FCC argues that 25 Mbps/3 Mbps is reflective of advanced telecommunications capability, while many providers assert that the new benchmark is too high, excessive, or aspirational. See Federal Communications Commission, *2015 Broadband Progress Report*, FCC 15-10, February 4, 2015, pp. 29-34.

[11] Federal Communications Commission, *2015 Broadband Progress Report*, FCC 15-10, February 4, 2015, p. 4, available at https://www.fcc.gov/reports/2015-broadband-progress-report.

[12] Ibid., p. 47.

- Municipal networks can inject competition in markets where there may be a limited number of providers. According to the FCC, 45% of households have only a single provider of broadband offering 25 Mbps/3 Mbps. A lack of competition can lead to high prices, poor customer service, limited and restrictive service packages, and delayed or no investment in advanced technologies such as ultra-fast gigabit networks. A municipal broadband network, in some cases, can induce private providers to lower prices and increase speeds in order to compete.
- Municipal broadband can address unmet public interest needs. Private providers tend to favor middle- to upper-income households which will generate adequate revenue. Municipal broadband entities that are publicly owned may be more likely to offer broadband to low-income households at affordable prices.
- Municipal broadband follows the tradition of municipal utilities, which have been providing basic utilities such as water, natural gas, and electricity for many years.

## Arguments Opposed to Municipal Broadband

The main argument against municipal broadband (typically referred to by some opponents as "government-owned broadband") is that it is inappropriate for government-sponsored, -owned, or -supported networks to compete with private providers. Municipal networks have unfair inherent advantages over existing private networks, including preferential treatment with respect to rights of way and other local regulatory barriers, and financing by direct taxpayer subsidies or government bonds with below-market interest rates. This advantage can result in market-distorting effects that can unfairly skew the competitive playing field between private and public providers. Anti-municipal broadband arguments include

- Deploying broadband systems is inherently high-risk, because unlike basic utilities like water or electricity, there are typically competing providers and not all customers will necessarily sign up for service. Governments can be ill-equipped to plan, operate, and maintain efficient commercial broadband systems, and if they fail, the taxpayers will be liable for the cost of that failure.
- Taxpayer money should more appropriately be directed toward basic infrastructure needs—such as roads, bridges, and water systems—that are traditionally under the purview of government. In the United States, broadband is primarily provided by the private sector. Public money that is directed toward municipal broadband is money that is taken away from other, more critical infrastructure needs.
- According to the FCC, "private industry continues to invest billions of dollars to expand America's broadband networks."[13] Because of the market-distorting effects of municipal broadband, continued private sector investment in broadband networks might be discouraged in some cases.
- The broadband market is subject to rapid technological change and intense competition. The bureaucracy of government is not well suited to making policy decisions in a dynamic and rapidly changing environment. This poses the risk of municipal broadband networks being reliant on soon-to-be obsolete technologies.

[13] Ibid., p. 9.

## Case Studies—Successes or Failures?

While all agree that there is risk in municipal broadband, supporters and opponents argue over the significance of "successes" and "failures" among existing municipal broadband projects. With hundreds of municipal broadband projects to choose from, there will always be examples to fit whichever definition of "success" or "failure" that observers choose to apply. In general, municipal broadband supporters point to projects that have provided improved services, lower prices, increased competition, and an improved climate for private-sector investment in the local economy.[14] Municipal broadband opponents cite examples where government-owned networks have not been profitable, have discouraged private competition, and have been subject to managerial inefficiency or technological obsolescence.[15]

In some cases, both proponents and opponents of municipal broadband have cited the same municipal broadband project to bolster their arguments. For example, in 2005, the community of Lafayette, LA, voted to build a municipal fiber network called LUS Fiber. LUS Fiber, financed by bond revenues, was built in 2008 and connected to its first customers in 2009.

According to the White House report *Community-Based Broadband Solutions: The Benefits of Competition and Choice for Community Development and Highspeed Internet Access*, LUS Fiber's network has increased customer savings and strengthened local anchor institutions:

> As competing firms adjusted their plans to account for LUS Fiber's market entry, residents who weren't customers of the network started to see lower prices. Cox Communications, a major regional provider which had raised rates six times in four years, kept its rates stable from 2004 to 2007 to account for LUS's possible market entry. Still, LUS's prices have been consistently lower than those offered by Cox. Terry Huval, the director of LUS, estimates that the community saved $4 million from these deferred rate increases. Using estimates of Cox's average competing discounts and LUS Fiber's lower rates, LUS projects the fiber system will create total savings of between $90 and $100 million over its first 10 years.
>
> The fiber network has brought in companies eager to obtain fast service at lower prices. Pixel Magic brought 100 to 200 jobs when it built an office in Lafayette to accomplish work on the movie "Secretariat." The high speed capability of the broadband network was a big factor in their eventual decision to maintain their office in Louisiana permanently. The tech startup firm Skyscraper Holding moved from Los Angeles to Lafayette to obtain 100 Mb/s speeds at a fraction of the cost the company was charged on the west coast.[16]

Municipal broadband opponents have a different take on LUS Fiber, stating the network is 30% short of its revenue projection as set out in its business plan, more than $160 million in debt, and

[14] See for example: Executive Office of the President, *Community-Based Broadband Solutions: The Benefits of Competition and Choice for Community Development and Highspeed Internet Access*, January 2015, pp. 13-18; Institute for Local Self-Reliance, Community Broadband Networks, "Successes and Failures," available at http://www.muninetworks.org/content/successes-and-failures; and Edward Wyatt, "Fast Internet is Chattanooga's New Locomotive," *New York Times*, February 3, 2014.

[15] See for example: Thomas A. Schatz and Royce Van Tassell, "Municipal Broadband Is No Utopia," *Wall Street Journal*, June 19, 2014; Free State Foundation, "Another One Bites the Dust: Burlington Telecom's Failure Shows, Again, That Government-Operated Broadband Networks Are Not The Solution," March 3, 2014, available at http://freestatefoundation.blogspot.com/2014/03/another-one-bites-dust-burlington.html; and George S. Ford, Phoenix Center for Advanced Legal & Economic Public Policy Studies, "Why Chattanooga Is Not the 'Poster Child' for Municipal Broadband," January 20, 2015, available at http://www.phoenix-center.org/perspectives/Perspective15-01Final.pdf.

[16] *Community-Based Broadband Solutions: The Benefits of Competition and Choice for Community Development and Highspeed Internet Access*, p. 16.

struggling to compete with cable, telephone, wireless, and satellite service providers in terms of price, performance, and service options.[17] The think tank R Street noted that LUS Fiber received a warning from city auditors about low revenues and stated:

> Lafayette's auditors voiced similar concerns in their reports the last two years. In 2012, they punctuated it with a calculation that the $140-million system was costing the city $45,000 a day.
>
> Now, after six years of operation, prospects aren't much better. The city's financial reports, provided by a source in Lafayette, show that for the fiscal year ended Oct. 31, 2013, LUS Fiber reported $23 million in operating revenues, compared to $36.7 million that was forecast in its feasibility study. The system incurred a $2.5 million operating loss for the year. According to the original plan, this was to be the point where the operation swung to a profit of $902,000. The most staggering number, however, is LUS Fiber's deficit, which stood at $47 million at the end of October, up from $37.1 million the year before.[18]

# The Role of the Federal Communications Commission

The FCC, an independent federal agency charged with regulating interstate and international communications, has taken an active role in promoting the deployment of broadband services and broadband infrastructure.[19] The FCC has adopted numerous proceedings to facilitate access to and the adoption of advanced services including the following:

- the transition of the Universal Service Fund from a mechanism that supports voice service to one that supports the deployment and adoption of both fixed and mobile broadband;
- the modernization of the Schools and Libraries Program to incorporate high speed broadband and Wi-Fi connections; and
- the expansion of the Lifeline Program to provide support for broadband as well as voice services, to name a few.

Then-FCC Chairman Wheeler also stated on numerous occasions his support for the development of community-based broadband service options and expressed his opinion that the FCC has the authority to preempt state laws that ban competition from community broadband.[20]

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[17] Steven Titch, Reason Foundation, *Lessons in Municipal Broadband from Lafayette, Louisiana*, November 2013, pp. i-ii, available at http://reason.org/files/municipal_broadband_lafayette.pdf. A rebuttal was published by Christopher Mitchell, MuniNetworks.org, and Institute for Local Self-Reliance, *Correcting Community Fiber Fallacies: The Reality of Lafayette's Gigabit Network*, September 2014, available at http://ilsr.org/wp-content/uploads/downloads/2014/10/fiberfallacieslusfiber.pdf.

[18] Titch, Steven, R Street, *Muni broadband: The Gift That Keeps on Taking*, May 30, 2014, available at http://www.rstreet.org/2014/05/30/muni-broadband-the-gift-that-keeps-on-taking/.

[19] For a further discussion of the structure and role of the FCC see CRS Report RL32589, *The Federal Communications Commission: Current Structure and Its Role in the Changing Telecommunications Landscape*, by Patricia Moloney Figliola.

[20] For example, see the statement of FCC Chairman Wheeler before the House Subcommittee on Communications and Technology, May 20, 2014, hearing on "Oversight of the Federal Communications Commission," available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-327165A1.pdf. However, it should be noted that this opinion is not universally held by all of the FCC Commission members.

## The City of Wilson and the Power Board of Chattanooga Petitions

On July 24, 2014, two local municipally owned broadband providers, the City of Wilson (Wilson), a North Carolina municipal corporation, and the Electric Power Board of Chattanooga (EPB), an independent board of the City of Chattanooga, TN, separately petitioned the FCC to preempt certain provisions of their respective states' laws which they claimed restricted the further deployment of their networks.[21]

Both Wilson and EPB operate electric utilities that also offer gigabit speed broadband networks that provide data, video, and voice services. Wilson provides electric service in six counties in eastern North Carolina and broadband service solely in Wilson County.[22] Wilson claims that despite "... numerous requests for these services ... in the other five counties.... " and a willingness to expand broadband services to these counties, it cannot, due to what it stated are overly burdensome provisions in state law that in effect have "... the purpose and effect of prohibiting it from doing so."[23] As in the case of Wilson, EPB states that it regularly receives requests from citizens and businesses, located outside of EPB's electric service territory, to provide advanced telecommunications services (e.g., broadband Internet access and services). EPB states that it is willing to provide these services and expand its service footprint, but is restricted by Tennessee state law that permits authorized municipal electric systems to provide Internet service (as well as cable service and video), but only within the boundaries of their (electric) service areas.[24] Both petitioners allege that existing provisions in their respective states' laws restricted their ability to expand their broadband services to surrounding areas where customers have expressed interest in these services and both request that the FCC use its authority pursuant to Section 706 of the Telecommunications Act of 1996 to preempt these laws.[25]

## The FCC Memorandum Opinion and Order

The FCC's Wireline Competition Bureau released a public notice on July 28, 2014, establishing a pleading cycle for the petitions setting comment and reply dates of August 29, 2014, and September 29, 2014, respectively.[26] After consideration of record the FCC, in a February 26, 2015, action, granted the petitions to preempt state laws in North Carolina and Tennessee that

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[21] *Petition of the City of Wilson, North Carolina, Pursuant to Section 706 of the Telecommunications Act of 1996, for Removal of Barriers to Broadband Investment and Competition*, filed July 24, 2014, available at http://apps.fcc.gov/ecfs/document/view?id=7521737310.

*Petition of the Electric Power Board of Chattanooga, Tennessee, Pursuant to Section 706 of the Telecommunications Act of 1996, for Removal of Barriers to Broadband Investment and Competition*, filed July 24, 2014, available at https://www.epb.net/downloads/legal/EPB-FCCpetition.pdf.

[22] Wilson County qualified for a grandfathering exemption since it provided these services in that county prior to the law's passage, but is not permitted to provide these services in the five other counties in which it provides electric service.

[23] Wilson petition, p. 2. (N.C. Gen. Stat. §160a-340 through 160a-340.6).

[24] EPB petition, p. 16. (Tenn. Code Ann. §7-52-601).

[25] Section 706 of the Telecommunications Act of 1996, P.L. 104-104, §706, 110 Stat. 56, 153 (1996), as amended by the Broadband Data Improvement Act, P.L. 110-385, 122 Stat. 4096 (2008), is now codified in Title 47, Chapter 12 of the United States Code, at 47 U.S.C. §1302.

[26] Pleading Cycle Established for Comments on Electric Power Board and City of Wilson Petitions, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks, WC Docket Nos. 14-115 and 14-116, Public Notice, DA 14-1072 (Wireline Comp. Bur. rel. July 28, 2014). Available at http://apps.fcc.gov/eefs/document/view?id=7521737783.

restricted the expansion of community broadband services.[27] In a Memorandum Opinion and Order (Order), which became effective upon its release on March 12, 2015, the FCC stated that selected provisions of the laws in North Carolina and Tennessee are barriers to broadband deployment, investment, and competition, and conflict with the FCC's mandate to promote these goals.[28]

The FCC relied upon its authority under Section 706 of the 1996 Telecommunications Act (Section 706), which directs the FCC to "... encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans ... by utilizing ... measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."[29] According to the Order the FCC concludes that "... preemption meets the standard for action under Section 706 because it will remove barriers to overall broadband infrastructure investment and promote overall competition in the telecommunications market in Tennessee and North Carolina."[30] Furthermore, the Order stated that "... preemption of these restrictions will expand broadband investment and deployment, increase competition, and serve the public interest, as Section 706 intended."[31]

The FCC preempted the geographic restrictions of both the Tennessee and North Carolina laws stating that they are barriers to broadband infrastructure investment and competition and preempted additional provisions of the North Carolina law containing other limitations, stating that the cumulative effect of those provisions collectively amounts to a barrier to broadband investment and competition.[32] These barriers are in clear conflict, the Order states, with Section 706, which directs the FCC to take action to remove such barriers. More specifically the Order concludes that in the case of the EPB petition "the territorial restriction in Tennessee Code Section 601 is a barrier to broadband deployment and infrastructure investment and limits competition."[33] With regard to the Wilson petition, the Order concludes that the geographic restrictions[34] and other, but not all of the remaining provisions of North Carolina law cited in the petition, when considered holistically, represent a barrier to broadband infrastructure investment or thwart competition.[35] Therefore the Wilson petition is granted in part to the extent discussed in the Order and otherwise denied.[36]

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[27] The 3-2 vote fell along party lines with Chairman Wheeler and Commissioners Clyburn and Rosenworcel approving and Commissioners Pai and O'Rielly dissenting. Statements of the Chairman and the commissioners available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-25A1.pdf.

[28] In the Matter of City of Wilson, North Carolina, Petition for Preemption of North Carolina General Statute Sections 160A-340 et seq., and the Electric Power Board of Chattanooga, Tennessee, Petition for Preemption of a Portion of Tennessee Code Annotated Section 7-52-601, WC Docket No. 14-115 and WC Docket No. 14-116. Released March 12, 2015. Available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-25A1.pdf.

[29] The Telecommunications Act of 1996, P.L. 104-104, §706.

[30] Order, at para. 42.

[31] Order, at para. 15.

[32] The EPB petition is granted and the Wilson petition is granted in part, Order, paras 183 and 184. The FCC determined that not every provision of the North Carolina law represents a barrier to infrastructure investment or thwarts competition such that they felt compelled to preempt it, para. 182.

[33] Order at para. 168 and paras. 77-79.

[34] As stated in the Order "... restrictions on the provision of bundled services undermines a provider's ability to provide broadband successfully due to a strong customer preference for bundled offerings." Order, para. 119.

[35] Order, at paras.94 and 182.

[36] See Order, paras. 123-129 for the justification for not preempting selected provisions and paras. 123 and 182 for a list of the provisions of North Carolina law not preempted.

The FCC stated that while it believes it cannot preempt state laws that outright ban municipal broadband networks, it can intervene (under the authority contained in Section 706) if a state allows municipal broadband networks, but imposes restrictions that create barriers to a timely and reasonable deployment of advanced telecommunications services to all Americans. That is, the FCC cannot require a state to allow municipal broadband networks, but it can preempt laws that impose restrictions on an existing network if they are creating barriers to deployment of such networks.[37] While the Order states that this ruling only applies to provisions of the laws of the two states (North Carolina and Tennessee) of the two petitioners, the FCC noted that "... the Commission [FCC] will not hesitate to preempt similar statutory provisions in factual situations where they function as barriers to broadband investment and competition."[38]

Whether the FCC does, or does not, have the legal authority under Section 706 to preempt state laws that restrict municipal broadband deployment remains controversial.[39] While the majority of the FCC commissioners (Chairman Wheeler and Commissioners Clyburn and Rosenworcel) voted in favor of this decision, it was not unanimous. Both Commissioner Pai and Commissioner O'Rielly dissented, stating that the FCC lacked the authority to grant the petitions.[40]

Both the state of Tennessee and the state of North Carolina filed lawsuits (petitions for review) challenging the FCC's authority to preempt these restrictions. The state of Tennessee filed its petition on March 20, 2015, with the U.S. Court of Appeals 6th Circuit, Cincinnati.[41] The state of North Carolina filed its petition on May 11, 2015, with the U.S. Court of Appeals 4th Circuit, Richmond.[42] These petitions were consolidated on August 3, 2015, in the U.S. Court of Appeals 6th Circuit, Cincinnati.

The U.S. Court of Appeals, in an August 10, 2016, decision reversed the FCC's Order. According to the court, "The FCC order essentially serves to re-allocate decision-making power between the states and their municipalities. This preemption by the FCC of the allocation of power between a state and its subdivisions requires at least a clear statement in the authorizing federal legislation. The FCC relies upon sec. 706 of the Telecommunications Act of 1996 for the authority to preempt in this case, but that statute falls far short of such a clear statement. The preemption order must accordingly be reversed."[43] The FCC chose not to appeal the ruling.

# Obama Administration and FCC Initiatives

In January 2015, President Obama announced steps "to help more Americans, in more communities around the country, get access to fast and affordable broadband."[44] In addition to

[37] Order, at paras. 11, 162-167.

[38] Order, at para. 16.

[39] The legality of this action goes beyond the scope of this report. For a discussion of the legal issues regarding municipal broadband and federal preemption see CRS Legal Sidebar, *Municipal Broadband and Federal Preemption*, by Kathleen Ann Ruane.

[40] Dissenting Statement of Commissioner Ajit Pai and Dissenting Statement of Commissioner Michael O'Rielly. Available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-25A1.pdf.

[41] *Tennessee v. FCC*, Case No. 15-3291 (6th Cir.) petition for review filed March 20, 2015.

[42] *North Carolina v. FCC*, Case No. 15-1506 (4th Cir.) petition for review filed May 11, 2015.

[43] State of Tennessee v. FCC, No.15-3291, slip op. at 3 (6th Cir. Aug. 10, 2016). Available at http://www.opn.ca6.uscourts.gov/opinions.pdf/16a0189p-06.pdf.

[44] The White House, *Fact Sheet*, "Broadband That Works: Promoting Competition & Local Choice in Next-Generation Connectivity," January 13, 2015, available at https://www.whitehouse.gov/the-press-office/2015/01/13/fact-sheet-broadband-works-promoting-competition-local-choice-next-gener.

supporting the FCC Order (discussed above), the Administration plan contained initiatives directly relevant to municipal broadband, including the following.

- *Establishment of the Broadband Opportunity Council*. On March 23, 2015, the President signed a Presidential Memorandum, "Expanding Broadband Deployment and Adoption by Addressing Regulatory Barriers and Encouraging Investment and Training."[45] The memorandum established an interagency Broadband Opportunity Council chaired by the Department of Commerce (DOC) and the USDA, and consisting of 25 other member agencies. The Council's objectives were to engage with industry and other stakeholders to understand ways the government can better support the needs of communities seeking to expand broadband access and adoption; identify regulatory barriers unduly impeding broadband deployment, adoption, or competition; survey and report back on existing programs that currently support or could be modified to support broadband competition, deployment, or adoption; and take all necessary actions to remove these barriers and realign existing programs to increase broadband competition, deployment, and adoption. On September 21, 2015, the Administration released the *Broadband Opportunity Council Report and Recommendations*.[46] In its report, the Council issued nine recommendations encompassing 36 immediate actions that federal agencies committed to undertake. In January 2017, NTIA released the *Broadband Opportunity Council Agencies' Progress Report*, which provided a snapshot of agency progress towards meeting the recommendations and action items.[47]
- *BroadbandUSA.* Based on the expertise acquired from administering the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) broadband stimulus program (specifically the Broadband Technology Opportunities Program), the National Telecommunications and Information Administration (NTIA) established an information and best-practices resource available to communities seeking to develop broadband public-private partnerships.[48] BroadbandUSA[49] offers online and in-person technical assistance to communities; hosts a series of regional workshops around the country; and publishes guides and tools[50] intended to help communities address problems in broadband infrastructure planning, financing, construction, and operations across

[45] Available at https://www.whitehouse.gov/the-press-office/2015/03/23/presidential-memorandum-expanding-broadband-deployment-and-adoption-addr.

[46] Department of Commerce and Department of Agriculture, *Broadband Opportunity Council Report and Recommendations*, August 20, 2015, available at https://www.ntia.doc.gov/files/ntia/publications/broadband_opportunity_council_report_final.pdf. For a summary of the BOC report, see CRS Insight IN10367, *Broadband Opportunity Council Report and Recommendations*, by Lennard G. Kruger, available to congressional clients upon request.

[47] Department of Commerce and Department of Agriculture, *Broadband Opportunity Council Agencies' ProgressReport*, January 13, 2017, available at https://www.ntia.doc.gov/files/ntia/publications/broadband_opportunity_council_agencies_progress_report_jan2017.pdf.

[48] Lawrence E. Strickling, Administrator, National Telecommunications and Information Administration, "NTIA Announced BroadbandUSA Effort to Assist Communities with Broadband Plans," January 14, 2015, available at http://www2.ntia.doc.gov/ntia_announces_broadbandusa_effort.

[49] Available at http://www2.ntia.doc.gov/.

[50] See for example, NTIA, *BroadbandUSA: An Introduction to Effective Public-Private Partnerships for Broadband Investments*, January 2015, 16 pp., available at http://www2.ntia.doc.gov/files/ntia_ppp_010515.pdf.

many types of business models. BroadbandUSA is also developing a Community Connectivity Initiative, an online tool that provides a planning and assessment framework that can be used by local communities seeking to accelerate broadband access.

The federal government has also affected municipal broadband through broadband funding programs. While municipal broadband projects are locally directed and funded, the federal government has supported these efforts by helping to finance some of the middle-mile fiber networks that municipal networks can interconnect with. A major funding vehicle for middle-mile fiber networks was the $7 billion broadband stimulus program established by the ARRA.[51] ARRA Awards were made in FY2009 and FY2010, and projects are completed or in the final stages of completion.[52] Going forward, the ARRA broadband programs have concluded and no more funding will be awarded.

Currently, there are three ongoing programs at the RUS that provide funding for broadband infrastructure (although at funding levels significantly less than what was provided in the ARRA broadband programs). These are Farm Bill Broadband Loans and Loan Guarantees[53] ($20.6 million loan level in FY2016), Telecommunications Infrastructure Loans and Loan Guarantees[54] ($690 million loan level yearly), and Community Connect Grants[55] ($10.4 million in FY2016). While local governmental entities are eligible to apply for these programs, funding has tended to go to private providers.

The other major existing federal vehicle for funding broadband infrastructure is the Connect America Fund (CAF). While RUS grants and loans are used as up-front capital to invest in broadband infrastructure, the CAF provides ongoing subsidies to keep the operation of broadband networks in high-cost areas economically viable for providers.

# Congressional Activity—114th Congress

Four bills (S. 240, S. 597, H.R. 1106, and H.R. 6013) were introduced, and one draft measure (H.R.__) was released, in the 114th Congress that addressed the municipal broadband debate. Provisions in these measures range from those that restrict states and localities from enacting laws that prohibit public (municipal) broadband (S. 240, H.R. 6013) to those that prevent the FCC from preempting current or future state and local laws that prohibit municipal broadband (S. 597, H.R. 1106) and in the case of the discussion draft (H.R. __), preempt the FCC and/or any state regulatory authority from using Section 706 as a source of authority to preempt state laws (e.g., those that prohibit municipally owned broadband networks). None of these measures were enacted.

The Community Broadband Act of 2015 (S. 240), introduced by Senator Booker on January 22, 2015, seeks to remove state barriers for constructing municipal broadband networks and encourages public-private partnerships. S. 240 provides that no state or local statute may prohibit,

[51] See CRS Report R41775, *Background and Issues for Congressional Oversight of ARRA Broadband Awards*, by Lennard G. Kruger.

[52] A listing of Broadband Technology Opportunity Program (BTOP) infrastructure awards made by the National Telecommunications and Information Administration (NTIA) is available at http://www2.ntia.doc.gov/infrastructure. Broadband Initiative Program (BIP) awards made by the Rural Utilities Service (RUS) are available at http://www.rd.usda.gov/files/reports/RBBreportV5ForWeb.pdf.

[53] See http://www.rd.usda.gov/programs-services/farm-bill-broadband-loans-loan-guarantees.

[54] See http://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees.

[55] See http://www.rd.usda.gov/programs-services/community-connect-grants.

or have the effect of prohibiting or substantially prohibiting, any public entities from providing either telecommunications services (e.g., telephone services) or advanced telecommunications capability or services (e.g., broadband Internet access services). With respect to the private provider that a municipality regulates, S. 240 requires a public provider not to discriminate in favor of its own public network with respect to how it applies municipal ordinances, rules, policies, and fees related to requirements such as rights of way and permitting. S. 240 encourages public-private partnerships and requires extensive public notice of proposed municipal broadband projects, including an opportunity for private providers to bid on that proposed project. The anti-discrimination and public notice requirements in the bill would not apply where a public provider does not provide telecommunications or broadband services to the public "or to such classes of users as to make the capability or services effectively available to the public," or during an emergency. S. 240 prohibits the use of federal funds to assist a public provider in reviving or renewing a project that has failed due to bankruptcy or termination. The bill was referred to the Senate Committee on Commerce, Science, and Transportation. The Community Broadband Act of 2016 (H.R. 6013), introduced on September 13, 2016, by Representative Eshoo, is similar to S. 240 in that it prohibits states from enacting laws or regulations that prohibit public providers (e.g., states, localities or municipalities) from providing "advanced telecommunications capability" or services utilizing that capability and contains public provider antidiscrimination safeguards.

The State's Rights Municipal Broadband Act of 2015 (S. 597 and H.R. 1106), introduced on February 26, 2015, by Senator Tillis and Representative Blackburn, respectively, states that the FCC cannot preempt states with municipal broadband laws already in place, or any other states that subsequently adopt such municipal broadband laws. The bill also includes a Sense of Congress stating that the FCC does not have the legal authority under Section 706 to prohibit states from implementing any law of such state with respect to the provision of broadband Internet access service (e.g., municipal broadband restrictions). The bills were referred to the Senate Committee on Commerce, Science, and Transportation and the House Subcommittee on Communications and Technology, respectively.

Draft legislation[56] released on January 16, 2015, by Republican leaders of the House Energy and Commerce Committee and the Senate Committee on Commerce, Science, and Transportation includes a provision that prohibits the FCC, or any state commission with regulatory authority over telecommunications services, from relying on Section 706 as a grant of authority. If enacted this would be in direct conflict with the FCC's final Order, which rests on its Section 706 authority to preempt selected provisions of North Carolina and Tennessee law that restrict municipal broadband deployment.

# Policy Issues

Since the private sector began deploying broadband infrastructure in the late 1990s, Congress and the FCC have sought to enact policies and programs that address the directive of Section 706 to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans."

With respect to municipal broadband, the issue for Congress is whether locally owned and/or supported networks should be encouraged or restricted. The debate is complicated by the diversity of municipal broadband projects. Each community and project is unique and subject to

[56] Available at http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/114/BILLS-114hr-PIH-OpenInternet.pdf.

different factors that can lead to its ultimate success or failure. Abundant examples of successes and failures are available to support arguments made by both supporters and opponents alike.

In addressing municipal broadband, Congress and the FCC have sought to balance two competing public policy interests. On the one hand, with hundreds of municipal broadband projects underway in communities across the country, with other communities exploring various kinds of municipal networks that might offer higher speeds at affordable prices, and with 20 state laws that ban or restrict municipal broadband projects, many have argued that state restrictions be overridden either by congressional legislation or by FCC rule. Ultimately, as discussed above, on March 12, 2015, the FCC released an order lifting restrictions on municipal broadband networks in Wilson, NC, and Chattanooga, TN.

On the other hand, counterbalancing arguments point to the primacy of private sector providers in deploying the nation's broadband. Municipal broadband opponents argue that public entities are ill-equipped to efficiently develop, operate, and maintain commercial broadband networks, and that municipally owned and supported broadband networks constitute unfair competition to private sector providers, and may ultimately impede private investment in broadband infrastructure.

One way that Congress has addressed the debate is through its oversight and authorization of the FCC. Committees with jurisdiction over telecommunications policy—such as the House Energy and Commerce Committee and the Senate Commerce, Science and Transportation Committee—are considering measures reflecting both sides of the issue: from preventing the FCC from overruling state municipal broadband restrictions on the one hand, to overriding those state-imposed restrictions on the other.

Congress can also have an impact through the appropriations process. For example, in the 113th Congress, H.R. 5016 (Financial Services and General Government Appropriations Act, 2015), as passed by the House on July 16, 2014, would have provided that none of the funds made available in the FY2015 FCC appropriation could be used to prevent 20 states from implementing their own laws with respect to the provision of broadband by the state or a municipality or other political subdivision of the state.[57]

Another way Congress could support municipal broadband is through funding broadband infrastructure, although funding initiatives are often balanced against fiscal considerations and against concerns over whether federally funded networks unfairly compete against private sector broadband deployment.

Ultimately, whether municipal broadband should be encouraged or restricted is one of many policies that Congress continues to consider for promoting broadband deployment. These include loans and grants for broadband infrastructure deployment; universal service reform; tax incentives to encourage private sector deployment; regulatory and deregulatory measures; and spectrum policy to spur roll-out of wireless broadband services. Some of these policies may be considered in the context of efforts to rewrite the Communications Act of 1934. To the extent that Congress may consider the various options for promoting broadband, a central issue is how to strike a balance between providing government support for broadband in areas where the private sector may not be providing acceptable levels of broadband service, while at the same time minimizing any deleterious effects that government intervention in the marketplace may have on competition and private sector investment.

[57] Amendment offered by Representative Blackburn on House floor, July 15, 2014. The House adopted the amendment by a vote of 223-200 on July 16, 2014. This language was not enacted in the final version of the legislation, P.L. 113-235.

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