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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of

Petitions of Electric Power Board and City of Wilson, Pursuant to Section 706 of the Telecommunications Act of 1996, Seeking Preemption of State Laws Restricting the Deployment of Certain Broadband Networks	))))))))	WCB Docket No. 14-115 WCB Docket No. 14-116

Comments of ITIF

August 29, 2014

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I. Introduction and Summary

The Information Technology and Innovation Foundation ("ITIF")[1] respectfully offers these comments opposing the petitions presented in the above-captioned proceedings. ITIF believes that the state laws restricting municipal broadband deployment referenced in the petitions are usually based on sound policy where they prevent inefficient overbuilding of existing networks and should not be preempted by the Commission.

[1] The Information Technology and Innovation Foundation (ITIF) is a non-partisan research and educational institute – a think tank – whose mission is to formulate and promote public policies to advance technological innovation and productivity internationally, in Washington, and in the states. Recognizing the vital role of technology in ensuring prosperity, ITIF focuses on innovation, productivity, and digital economy issues.

II. Where Federal Preemption Makes Sense in Digital Age

Putting aside the legal question of whether or not the Commission has the authority to preempt state laws restricting municipal broadband deployment, although ITIF believes it probably does not,[2] the Commission should first consider under what circumstances it would be sensible to preempt state laws dealing with information technology. State governments are usually well positioned to understand the particular circumstances of their citizens, but there are a few instances where preemption clearly makes sense.

The first situation where federal preemption would be encouraged is where multiple conflicting or diverse state laws add complexity and cost to compliance. For example, we should certainly avoid having 50 different privacy or data breach laws, or to use a more recent example, 50 different standards for a cell phone kill switch. A single, common framework with clear obligations can reduce burdens on existing companies, lower entry costs for new firms, and bring greater transparency to crucial, contested policy questions.

Municipal broadband networks clearly do not fit in this category. The development of a municipal network in no way changes the standards or regulatory environment for private sector providers outside the jurisdiction. On the other hand, where private companies operate under diverse municipal requirements, there are clear ways in which the FCC can use its tools to impose a common framework, lowering the barriers to deployment of advanced communications networks. The Commission's action to bring some uniformity to the wireless facility-siting application process, recently affirmed by the Supreme Court,[3] is a good example.

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[2] Put simply, it is unlikely that Section 706 grants "unmistakably clear" preemption authority for the same reasons as those explored in *Nixon* in the context of Section 253. *See Nixon v. Missouri Municipal League*, 541 U.S. 125 (2004).

[3] *City of Arlington v. FCC*, 133 S. Ct. 1863 (2013).

A second situation where preemption makes sense is where there is a clear divergence between subnational government interests and overall national interests. A prime example is Internet taxes. Any individual state would benefit from a reliable source of revenue from taxing Internet access, but the costs from increasing the price of Internet access on their citizens is borne not just by their citizens but by all states in the form of reduced network effects. There is clear scholarly evidence that increasing the cost of broadband access limits adoption and that lower levels of adoption hurt overall U.S. economic growth.[4] Here it makes sense for the federal government to step in and preempt harmful state taxes on Internet access.

So the key question is whether municipal broadband impose positive or negative externalities on the rest of the United States. Supporters claim that these networks boost broadband adoption and increase speeds so that the overall U.S. digital ecosystem is stronger. But, as discussed below, we believe that a stronger case can be made that such networks can in fact impose negative externalities, not positive ones.

Municipal supporters trumpet the benefits of next-generation networks to local jurisdictions. Municipal networks with successful advanced telecommunications networks may attract new businesses to an area and the citizens will be better connected.[5] This is undoubtedly true where municipalities are building new networks where the community is not already served by either cable or DSL. There are some cases where areas are extremely difficult to serve, usually because of low population density and difficult terrain. In these situations, public subsidies, either at the municipal or federal level would be justified. However, where a community is already served by existing networks, it is more likely that municipally-supported

[4] *See* Scott Andes and Robert D. Atkinson, "A Policymaker's Guide to Internet Tax," ITIF (Mar., 2013), http://www2.itif.org/2013-policymakers-guide-internet-tax.pdf.

[5] *See, e.g.*, The Electric Power Board of Chattanooga, Tennessee, Petition Pursuant to Section 706 of the Telecommunications Act of 1996 for Removal of State Barriers to Broadband Investment and Competition, *Petition*, WC Docket No. 14-116 (Jul. 24, 2014) at pg 24.

networks do more harm than good to the area outside its jurisdiction – hence the state restrictions.

It is unlikely that there would be significant positive externalities from adding municipal broadband network if that network is a duplicative network in a city already served by broadband, as is the case with the lion's share of municipal networks. More likely is that these projects exhibit significant negative externalities from inefficient overbuilding, as explored further below. In this case, the role of the federal government, if there is one, would be to limit municipal networks, not preempt state laws limiting them.

Another possible justification for the disagreement between the Electric Board of Chattanooga and the City of Wilson and their respective state governments is that the states are mistaken, that municipal broadband is actually good policy and these laws have been adopted in error. ITIF does not believe this to be the case: these state laws banning municipal broadband or enacting limitations (such as limiting explicit or implicit government subsidies) on build-outs are based on sound policy to prevent inefficient waste of public resources.

III. The Commission Should Not Encourage Municipal Broadband

The Commission should not preempt state laws restricting municipal broadband because many of the theories supporting government competition in broadband are flawed, and would lead to inefficient overbuilding of existing networks.[6] Furthermore, the empirical reality is that many such municipal networks have failed or are struggling financially. The federal government would be better served working with municipalities to identify ways to reduce costs of deploying or upgrading existing infrastructure.

[6] For further examination of the role of competition in broadband generally, *see* Robert D. Atkinson, "The Role of Competition in National Broadband Policy" 7 J. on Telecom and High Tech. Law 1 (2009) *available at* http://www.jthtl.org/content/articles/V7I1/JTHTLv7i1_Atkinson.PDF.

A. Municipal broadband networks are usually inefficient overbuilds

The economics of broadband deployment are driven primarily by the large, sunk fixed-costs of the initial infrastructure deployment. Proponents of municipal broadband argue that these fixed costs represent an unacceptable barrier to entry, preventing robust competition. To them, it is only with the presence of more competitors that we will see lower prices and more aggressive deployment. To overcome these barriers to entry, the government must take on the risk of large public investment in order provide competitive pressure to improve throughput and keep prices low.

Such a view is flawed for several reasons. First, it underestimates the level of competition between existing providers: even where there are only two providers, duopoly competition can provide significant pricing and upgrade discipline. Furthermore, mobile broadband, while not yet a direct competitor to wired, is undoubtedly already a substitute for some applications and provides some discipline at the margin. Second, such a view represents a myopic focus on static efficiencies like price competition. To claim a need for artificial injection of competition undervalues dynamic efficiencies like research and development and the advancement of new networking technologies that have to come from the returns on sunk investments. Finally, a government competitor does nothing to change the fundamental economics of high fixed-cost industries. Propping up a new competitor does nothing to alter the underlying, legitimate economic reasons for concentration and instead will increases overall costs.

Even if a government competitor succeeds in reducing prices for broadband in their jurisdiction the private sector broadband firms will undoubtedly see revenues reduced more than costs. The reason is that while more competitors in a territory reduce some variable costs (e.g., customer service, billing, etc.) they don't reduce fixed costs (e.g. costs to support plant and equipment). As a result, revenues of existing carriers go down more than costs. Someone will have to pay the difference. Many municipal advocates will assert that all of this delta between reduced costs and reduced revenues will be borne by lower ISP profits. But as ITIF has shown,

these profits are not so large to begin with to be able to cushion the reduced revenue.[7] The reality is that the delta will more likely be made up by reduced investment and/or higher consumer prices in other cities and regions. This is not a theoretical argument: there is empirical evidence showing an increase in broadband competition raises prices where there is diversity in consumer's preference for various broadband offerings.[8] Cities that overbuild broadband networks are imposing costs on consumers outside of their jurisdiction and on other networks, justifying state restrictions.

Considering only the market for broadband, the diversity of consumer preference, where those willing to pay more for higher throughput (helping to recoup the investment needed to support that throughput) may well exist where municipalities offer a fiber network. Although ITIF believes "gigabit" broadband to be far in excess of current consumer needs, and networks generally should be designed to stay slightly ahead of actual current consumer demand instead of trying to meet artificial benchmarks, the higher throughput offered by fiber will tend to draw those consumers with a willingness to pay more for higher speeds, even if demand is based primarily on marketing. When fiber draws away the higher-paying customers, the incumbent networks, left with fewer options for providing a diversity of offerings, will have little choice but to raise prices, harming those consumers less able or willing to pay.

These municipal networks will also have the incentive to only build in the lowest-cost, highest-return geographic areas. Municipal networks will understandably be pushed to build only in population-dense areas to see an early return on their investment. Although this approach is undoubtedly a strong business strategy and significantly reduces costs, it will unfortunately have

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[7] Richard Bennett, Luke A. Stewart, & Robert D. Atkinson, "The Whole Picture: Where America's Broadband networks Really Stand," ITIF (Feb., 2013), at 55-56, http://www2.itif.org/2013-whole-picture-america-broadband-networks.pdf.

[8] *See* Yongmin Chen & Scott Savage, "The Effects of Competition on the Price for Cable Modem Internet Access," *NET Institute Working Paper No. 07-13* (Sept., 2007).

a similar effect of reducing revenue for the larger geographic area, leaving the consumers that are more costly to serve to other networks.

There is another kind of cherry-picking inherent in most if not all municipal networks: they predominantly serve *cities*, and not surrounding areas, which by definition have higher population densities that enable lower cost service provision and higher revenues. Incumbent private sector providers, whether cable or telephone companies, don't usually have this option; they serve many more types of geographies, including less densely populated urban and exurban regions. Because most private providers have regional pricing plans, they do not charge more for higher cost areas. By cherry picking, either within their city, or by investing only in the city itself, municipal broadband providers have an advantage over larger private sector providers of lower costs and higher revenues. To the extent they take market share away from these providers exurban and rural customers will face higher costs. This sort of cherry-picking imposes negative externalities and will leave those outside population-dense areas worse off.

Furthermore, assuming that a municipality is already served by an incumbent broadband network, there is little reason to think that the higher throughput of an all-fiber network will offer significantly more positive externalities to a community than existing broadband networks. Businesses that rely on bandwidth are already able to access high-speed transit networks in cities. Most of the positive externalities to be gained from broadband are in getting everyone online and digitizing key services – not in the higher speeds from fiber. These municipalities will end up with more or less the same "amount" of broadband with significantly higher costs.

Another factor in justifying state restrictions is that these real economic hurdles, the legitimate reasons for concentration in this industry, have lead to the failure of several municipal networks.

B. Municipal broadband networks are often unsuccessful

In addition to the difficulties of recouping large fixed costs over a limited customer base, local governments are simply not well equipped to compete in these dynamic markets. Running a broadband network is a complicated business, with rapidly changing, complex inputs and considerable operating costs, including, for example, video program access fees.

Numerous cities have either failed or are struggling with financials. City networks including Burlington, Groton, Provo, UTOPIA, Dunnellon, Quincy, Monticello and numerous others have faced difficulties with high levels of debt and low levels of consumer demand. The iProvo network in Provo, Utah, ended up, after a string of difficulties, selling the network to Google for $1. Other similar fire sales indicate that municipalities are not well-suited to running broadband networks.

Another example is that of Fibernet in Monticello, MN. Fibernet is struggling with significant financial difficulties, and the city is now facing a suit from bondholders. Similarly, the MINET network in Oregon has had financial trouble that has led to disagreements between the served communities. Municipalities sometimes mistakenly believe that a fiber network is simple infrastructure, like a utility. These cities are then surprised by unexpected costs, both upfront and ongoing, and low up-take rates due to citizens either uninterested or already satisfied with existing services. Municipalities often underestimate the importance of bundled offerings in attracting customers, and find themselves having to procure video content. The politics of risking public debt aside, municipalities are generally not well suited to operating these complex services, especially where providers already exist.

A recent report from the Advanced Communications Law & Policy Institute at New York Law School undertakes an extensive review of government-owned broadband networks. Their number one conclusion: “failed and failing [government-owned networks] offer much-needed perspective about the complexities and challenges associated with building and deploying

advanced communications networks."[9] The report advocates for a "healthy degree of skepticism" when considering government-owned networks given the financial and implementation problems existing networks have faced.

C. There are better ways to accelerate deployment of advanced telecommunications capability

While municipally owned or operated networks should generally not be encouraged by the Commission, this doesn't mean that there aren't other ways to reduce costs of deploying new networks or upgrading existing infrastructure through city and federal policy, making it easier for private actors to operate in these high fixed-cost fields. Cities can work with private actors, both new entrants and incumbent operators, to lower the cost of deploying next generation networks. Access to city assets such as rights of ways, including pole access and fees, conduit access, and city building access are an obvious area of opportunity. Even simply providing information on where available conduit, ducts, rights-of-way, and government buildings where equipment could be attached can significantly reduce the cost of network upgrades. Here Google and Gig.U have led the charge, indentifying steps cities can take to lower the cost of improving or deploying new infrastructure.[10]

If the goal is to fuel upgrades to low-cost, next-generation networks, both federal and local governments should be focused on attacking the underlying economic realities that limit deployment instead of undertaking risky, difficult projects funded with public debt. In short, the

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[9] Charles M. Davidson & Michael J. Santorelli, "Understanding the Debate over Government-Owned Broadband Networks" *ACLP* (June 2014), http://www.nyls.edu/advanced-communications-law-and-policy-institute/wp-content/uploads/sites/169/2013/08/ACLP-Government-Owned-Broadband-Networks-FINAL-June-2014.pdf.

[10] For a further discussion of cost reductions that can be undertaken by cities, s*ee* Gig.U, "From Gigabit Testbeds to the 'Game of Gigs,'" *Third Annual Report of Gig.U*, (Aug. 2014).

Commission and municipalities should work to enable competition through sound economics, instead of actively promoting it through public debt.

IV. Conclusion

Many of the underlying theories supporting municipal broadband networks are flawed and the Commission would be misguided in encouraging further municipal overbuilding. These high fixed cost industries have economics that cannot sustain increased competition through an injection of public money without imposing negative externalities on others outside their jurisdiction. This fact, combined with the poor track record of attempted municipal networks and alternative opportunities to reduce costs through smarter policies mean that state laws restricting these networks are generally good policy and should not be preempted.

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