

**Smithville Communications, Inc. response to House Energy and Commerce
Universal Service Policy and the Role of the FCC**

1. *How should Congress define the goals of the Universal Service Fund? Should Congress alter or eliminate any of the six statutory principles, codify either of the principles adopted by the FCC, or add any new principles in response to changes in technology and consumer behavior?*

In defining the goals of the Universal Service Fund, Congress should have a vision for implementing broadband universally. What is the vision?

The current goals of the USF are a legacy of the voice network. Today, we build data networks and the overall goal of the United States should be to deliver ultra-high-speed broadband universally. In addition, the Universal Service Fund should not pick winners and losers or give any advantage to any specific technology or method of providing service.

When the National Broadband Plan was published, Smithville was disappointed. There did not seem to be a concrete plan for implementing ultra-high-speed broadband throughout the United States, with a focus on rural businesses and homes that might be adversely impacted by the digital divide. We expected a vision similar to that of the Interstate Highway System or the Transcontinental Railroad. That did not happen.

Instead, the National Broadband Plan is a series of networks patch worked together using legacy twisted-pair copper to carry “world-class broadband” to all parts of the nation. This is not the approach to take when you consider the growth in demand for bandwidth and fiber is being put in the ground all over the country today. Smithville Communications, Inc. believes that the future belongs to fiber.

2. *Universal service was created to fund build-out in areas incapable of economically supporting network investment. How should our policies address the existence of multiple privately funded networks in many parts of the country that currently receive support?*

Many communities are served by small providers who service only small towns and rural areas. Those towns typically contain the commercial center of an area. As such, providers depend on the businesses in these towns to help support the operations of a provider’s network in the area.

Elimination of financial support in a cost study area due to multiple providers in the town may likely cripple a telecommunications provider’s ability to deliver service in the rural area. Telecommunications companies have a congressional mandate through the principles of Universal Service to provide service to every household in a study area. Some companies adhere to that principal and others do not. Plus, cable companies are not under the same mandate and don’t always provide service to every household in a study area. Smithville has existed for 80 years in part because it is a small company, known for its quality service but also because the providers don’t focus on connecting every rural home and business, and often not that last mile.

If the federal government provides financial support for these companies to meet and maintain their Universal Services obligations, then Smithville supports eligibility criteria, reporting requirements in return for predictable and consistent support. Furthermore, any calculations of support must reflect, when appropriate, the average costs of installing fiber in rural areas.

3. *What is the appropriate role of states and state commissions with respect to universal service policy?*

States and state commissions should do two things to help insure universal service policy implementation.

First, states are closer to the consumer than the federal government. Federal public policy should reflect the importance of the views belonging to each state when implementing and enforcing universal service policy. States can give voice to the specific needs to both consumers and carriers in each state as they seek to address the new federal law. What works with customers in Rhode Island may not apply to customers in Indiana.

Second, a state should be able to intervene on the consumer's behalf when issues arise with a carrier in their respective state.

4. *What is the appropriate role of the Federal-State Joint Board on Universal Service in a broadband, IP-enabled, largely interstate world? What is the appropriate role of related joint boards, such as the Federal-State Joint Board on Separations or the Federal-State Conference on Advanced Services?*

The Federal-State Joint Board plays an important role in working to insure that universal service policies are implemented and enforced. The Board is tasked with making recommendations on universal service policy and that is just as important today in a broadband market.

Now that modern communications has rendered the concept of separations all but extinct, the Congress should weigh the costs and benefits of merging the Joint Board for Universal Service with the Joint Board for Advanced Services. After all, the universal service goal should be to bring advanced services to all Americans. Only the technology has changed. A merged Joint Board would work to provide current facts to the FCC and make recommendations toward implementing universal service policies.

By allowing this merged Joint Board to gather data at the state level, certain criteria would need to be approved by the Joint Board based on known parameters in each state and territory. The FCC would then take the data provided and would use that information as a resource in future rule makings. Under no circumstances should the FCC be allowed to pre-empt any recommendation from this merged Joint Board without first providing indisputable evidence that said Joint Board data is faulty and cannot be used.

This conclusion is based on Smithville's experience of having no input at the federal level when the FCC considered and finalized the USF reform order in 2011. We had no opportunity to convey the impact of the FCC order on the company's recovery of investment costs related to broadband build-out. We also wonder whether the FCC violated Section 254 of the Telecommunications Act of 1996 in not referring to the Joint Board on the proposed rulemaking on the reforms in the 2011 USF/ICC Transformation Order. This position is supported by evidence put forth in a resolution adopted by the NARUC Board of Directors on July 25, 2012. The resolution is attached.

5. The Universal Service Fund is one of several federal programs that support buildout of communications facilities. Are current programs at other federal agencies, like the National Telecommunications and Information Administration (which oversaw the Broadband Technology Opportunities Program) or the Rural Utility Service (which oversees lending programs and oversaw the Broadband Initiatives Program) necessary?

Smithville supports the continuation of the Universal Service Fund and the loan program of the Rural Utilities Service to further fund build out of ultra-high speed broadband networks. These programs along with the NTIA's Broadband Technology Opportunities Program have helped invest millions of dollars into building fiber optic networks around the country. Building ultra-high speed networks is not the issue. The issue is financially supporting the construction of those state-of-the-art networks and then maintaining those same networks over time in high cost rural areas.

There is a great deal of discussion about monetizing networks at the twilight of carrier access and reforms in the USF. When networks are built, they must be maintained and carriers should be allowed to make a profit so that the entity can maintain the network and make further investment in a new area of their geographic footprint. As Smithville has proven for many years, profits from the monetization of networks can and should be used to reinvest in new technology.

Unless there is a federal public policy to help provide for stable stream of funding, then incentives for private or public investment simply won't exist. There must be a return on investment; otherwise, no carrier will upgrade their networks. Even if a municipality were to invest in its own network, there are expectations that the municipality will at least break even.

These programs that support build out are only as good as the potential return on the investment.

6. How can we ensure that the Universal Service Fund is sufficiently funded to meet its stated goals without growing the fund beyond fiscally responsible levels of spending?

For the principles of universal service to be met, contribution reform to the Universal Service Fund must be seriously considered by the Congress. Demand for bandwidth is growing and the average household contains multiple mobile devices for entertainment, work, and study just to name a few uses of fiber.

No one has been able to answer the question, "What are the fiscally responsible levels of spending in USF?" The fiscally responsible level of spending in USF should match the ability of telecommunications companies to build and maintain a broadband network in this country consistent with the goals of the program. What is unacceptable is having federal policies that bring investment to a screeching halt.

7. Are all of the funds and mechanisms of the current Universal Service Fund necessary in the modern communications marketplace?

Yes, all of the funds and mechanisms of the current Universal Service Fund are necessary in the modern communications marketplace. If this country is to achieve the goals of universal service as codified in the Telecommunications Act of 1996, then there must be funding to implement and maintain.

The changes in communications technology have changed but the ultimate goal has not: To improve the human condition through the power of advanced telecommunication services.

8. In lieu of the current support mechanisms, could any of the programs be better managed or made more efficient by conversion to:

- a. A state block grant program;*
- b. A consumer-focused voucher program;*
- c. A technology-neutral reverse auction; or,*
- d. Any other mechanism.*

Perhaps, the most efficient way to manage current support mechanisms is to target investment in the more rural, high cost areas. The designation of an “Eligible Telecommunications Carrier” could also remain a primary way to focus on these areas.

If the goal is to truly put more value in the dollars of the Universal Service Fund then look at where these high cost areas are located and use the existing landline carriers to put those dollars to work. If carriers refuse then a reverse auction could be implemented. Legacy landline carriers under the ETC designation make the most sense because they are already serving high cost area customers. Those customers are not just residential or small business but also wireless towers.

Resolution Urging the Federal Communications Commission to Refrain from Implementing Quantile Regression Analysis on Rural Rate-of-Return Carriers Until Concerns Are Resolved, and To Engage State Regulators in Consideration of Next Steps

WHEREAS, The November 18, 2011, Universal Service Fund/Intercarrier Compensation Order (USF/ICC Transformation Order) adopted a specific mechanism, the Quantile Regression Analysis (QRA) as a proxy for identifying appropriate costs in “ensuring” that companies do not receive more support than necessary for prudent capital and operating costs, as set forth by the Federal Communications Commission (FCC) in Appendix H of the USF/ICC Transformation Order; *and*

WHEREAS, The FCC also issued a Further Notice of Proposed Rulemaking (FNPRM) with the Transformation Order that contemplates additional changes to USF and ICC systems, including further ICC rate reductions; *and*

WHEREAS, On February 17, 2012, the Rural Broadband Alliance filed reply comments with the FCC asserting that the QRA Model is not properly crafted to be transparent, predictable, and did not consider the effects of its implementation on universal service so that it provides no impacts on rural carriers’ opportunity to recover the lawful expenses they have incurred in the provisions of universal service; *and*

WHEREAS, On April 25, 2012, the FCC Wireline Competition Bureau issued an order (sometimes referred to as the Benchmarks Order) using a particular QRA model for capital and operating expenses and implementing, without any further review of the assumptions, methodology and impact (except the output of the unproven statistical tool), certain reductions in USF support for some USF recipients beginning July 1, 2012; *and*

WHEREAS, The QRA Model of April 25, 2012, continues to use a ninetieth percentile to apply limits which, despite questions about its methodology, assumptions, and applications, operates to potentially impair carriers from completing infrastructure projects begun before QRA Model adoption, and may not provide all carriers with sufficient and predictable support consistent with basic principles of universal service mandated by Congress; *and*

WHEREAS, On May 8, 2012, CoBank, a key lender to rural rate-of-return carriers, sent a letter to the FCC asking that the FCC abandon its use of QRA to cap USF support to carriers, citing potential errors and inconsistencies in the model’s assumptions that cause it to produce counter-intuitive and surprising results that would penalize rate-of-return carriers that have made substantial good faith commitments to providing broadband networks; *and*

WHEREAS, On June 21, 2012, USTelecom filed an Application for Review with the FCC requesting a brief delay of the QRA in order to resolve concerns related to transparency, accuracy, and predictability, in particular citing the expense and complexity of determining the impact of using the QRA Model on carriers, the inaccuracy of the study area boundaries, concern within the rate-of-return community that the QRA methodology and its application may be arbitrary and capricious and the fact that other petitions for stay have been filed with the FCC and federal court; *and*

WHEREAS, Accurate study area boundaries are particularly important to the regression-based model used by the FCC and the FCC has not yet determined the process for obtaining accurate study area boundaries; *and*

WHEREAS, State commissions are uniquely situated to fully comprehend the local geography, population density, cost characteristics and other factors which contribute to the determination of universal service needs; *and*

WHEREAS, The Federal–State Joint Board on Universal Service (USF Joint Board), which is made up of FCC Commissioners, State commissioners and consumer advocate representatives, was created by the Telecommunications Act of 1996 (TA96) for the purpose of making recommendations to implement the universal service provisions of the Act; *and*

WHEREAS, The FCC did not make a referral of the USF reform issues (including ICC issues that affect universal service) contained in the Transformation Order to the USF Joint Board and formally declined a request of the State members for a referral of the Further Notice and Proposed Rulemaking (NPRM); *and*

WHEREAS, The QRA Model’s retroactive impact on carriers may trigger avoidable litigation alleging retroactive ratemaking in violation of Section 205, 47 U.S.C. § 205, contrary to prior FCC decisions, including *In re: ACC Long Distance v. Yankee Microwave, Inc.*, 8 F.C.C.R. 85, aff’d 10 F.C.C. R. 654 (1995), and federal precedent in *Ohio Bell v. FCC*, 949 F.2d 864, 867 (6th Cir. 1991); *and*

WHEREAS, On June 21, 2012, the Rural Broadband Alliance (RBA) representatives met with FCC representatives to outline RBA’s continuing concerns that the QRA Model has created uncertainty about the level of USF support that is preventing rate-of-return carriers from developing meaningful budgets for 2014 and beyond; *now, therefore be it*

RESOLVED, The Board of Directors of the National Association of Regulatory Utility Commissioners, convened at its 2012 Summer Meeting in Portland, Oregon, acknowledges the need for the FCC to forgo implementation specifically of QRA-based caps on capital and operational expense for rural rate-of-return carriers, until the resolution of the Application for Review, Petition for Stay, and Application for a federal court stay, and widespread concerns about the accuracy of the study area boundaries and the QRA’s legal assumptions, methodology, application, accuracy, predictability, randomness, and appropriateness are resolved; *and be it further*

RESOLVED, The FCC should refer the consideration of whether to adopt any additional ICC and USF reforms to the USF Joint Board, other than the FCC’s pending implementation of items already adopted by rule in the USF/ICC Transformation Order, in lieu of proceeding with present and further FNPRMs; *and be it further*

RESOLVED, The FCC should commit to USF support that is predictable, methodologically sound, and includes a prohibition of retroactive application of the Model; *and be it further*

RESOLVED, Congress is urged to support: 1) the suspension of the QRA Model implementation by the FCC until questions about its impact and appropriateness are resolved in

collaboration with State commissions so as to dramatically reduce the difficulty in transitioning to a new form of reimbursement for capital and operating expenses for rate-of-return rural carriers that receive USF support; and (2) the referral of matters relating to adoption of any further ICC and USF reforms, other than pending implementation of items already adopted by rule in the USF/ICC Transformation Order, to the USF Joint Board.

Sponsored by the Committee on Telecommunications

Adopted by the NARUC Board of Directors July 25, 2012



Sprint – Government Affairs

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September 18, 2014

The Honorable Fred Upton
Chairman, Committee on Energy and
Commerce
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Greg Walden
Chairman, Subcommittee on
Communications and Technology
U.S. House of Representatives
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairmen Upton and Walden:

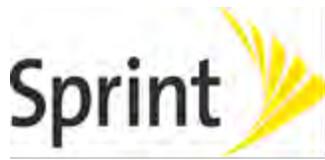
Thank you for the opportunity to present Sprint's response to the questions posed in the Committee's "Universal Service Policy and the Role of the Federal Communications Commission" white paper. We look forward to continuing to participate in the Committee's ongoing efforts to examine the Communications Act of 1934, as amended. Please don't hesitate to contact me if you have any questions regarding the attached submission.



Bill Barloon
Vice President, State and Federal Legislative Affairs

cc: Honorable Henry A. Waxman, Ranking Member, Committee on Energy and
Commerce; Honorable Anna G. Eshoo, Ranking Member, Subcommittee on
Communications and Technology

Attachment



**Federal Universal Service Policy Must be Competitively and Technologically
Neutral, Cost Effective, and Sustainable**

September 18, 2014

The preservation and promotion of universal service has been a major goal of the Communications Act since its inception. Changes in technology and consumer behavior have not eliminated the need for federal universal service support – there remain regions, markets, and individual consumers that do not have access to, or cannot afford, advanced or even basic communications services without the Universal Service Fund (USF). In order to preserve the USF, however, Congress and the Federal Communications Commission (FCC) must make existing programs more efficient, effective, and sustainable. In particular, Congress and the FCC must ensure the USF does not undermine private broadband investment by competitive service providers.

- 1. How should Congress define the goals of the Universal Service Fund? Should Congress alter or eliminate any of the six statutory principles, codify either of the principles adopted by the FCC, or add any new principles in response to changes in technology and consumer behavior?**

The Committee's White Paper summarizes key, bedrock universal service principles, six of which are codified and two of which were adopted by the FCC subsequent to the enactment of the 1996 Act. Sprint supports these bedrock principles. All six of the existing statutory principles should remain part of the Communications Act and any update of the Communications Act should also codify the FCC's principle that USF mechanisms and rules be competitively neutral. Codifying this important principle will help ensure that it is given equal weight with the

other six statutory universal service principles, and would highlight the overarching importance of competition in the communications industry.¹

While Sprint supports the fundamental principles in the Act, some must be updated to recognize changes in the telecommunications market and the move to advanced services. Congress should revise principle #4 - the requirement that “all providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service” to recognize the expanded scope and mission of the USF. USF policy and funding are increasingly – and correctly - focused on advanced services, and the USF contribution mechanism can no longer be based on or limited only to “providers of telecommunications services.” It is unfair and economically unsustainable to base an \$8 billion USF on a shrinking segment of the market, while diverting these funds to services not subject to contribution obligations.² Moreover, the current contribution mechanism is inconsistent with the statutory imperative that universal service support be “specific, predictable and sufficient” (principle #5). While Congress can and should leave the details of USF contribution reform to the expert agency, it should provide guidance to the FCC by revising principle #4 to require that all providers of connections to end users (which would include but not be limited to telecommunications and advanced service providers) “make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.”

¹ Separate codification of the other principle adopted by the FCC (universal service support should be directed where possible to networks that provide advanced as well as voice services) is not necessary, as it may reasonably be considered to be reflected in the second codified principle (that access to advanced telecommunications and information services should be provided in all regions of the nation). Moreover, the FCC’s emphasis here on providing support to “networks” should be treated cautiously, as it is potentially at odds with a consumer-focused, pro-competition approach to universal service.

² The federal universal service program currently is funded based on interstate and international end-user telecommunications revenues; revenues from information services (including retail broadband Internet access services) and from local and intrastate telecommunications services are not included in the contribution base. The current funding base has shrunk dramatically – from \$17.02 billion in the third quarter of 2004 to \$13.7 billion for the third quarter of 2014 (see FCC Public Notices DA 04-1613, released June 7, 2004, and DA 14-812, released June 12, 2014).

2. Universal service was created to fund buildout in areas incapable of economically supporting network investment. How should our policies address the existence of multiple privately funded networks in many parts of the country that currently receive support?

Classification of an area as “incapable of economically supporting network investment” should be subject to re-evaluation, not remain static. Over time, areas that previously were uneconomic to serve absent universal service support may become economically viable due to new, more efficient technologies, to population growth, to increased economic value of services, or to other factors. If even one privately funded network exists and is used to offer universal service-quality service to consumers in a given geographic area, that area by definition cannot be considered “incapable of economically supporting network investment.” Where private alternatives exist, existing universal service support to incumbent service providers should be eliminated or at least phased out within a reasonable time.

Phasing out existing support may be painful and alarming to current recipients. However, continuing to provide open-ended and/or automatic universal service subsidies to an incumbent provider where a private network has been deployed is contrary to the public interest. It is an inefficient use (and thus a waste) of limited resources to continue to subsidize an incumbent provider when a presumably more efficient provider has entered the market; the public interest harm may be exacerbated if the USF subsidy results in a pricing umbrella by the incumbent service provider. Where universal service subsidies have been eliminated, the FCC should also consider whether the impacted carrier should be subject to reduced regulatory reporting and accounting obligations.

High cost/Connect America Fund (CAF) support may indeed be necessary in areas that are genuinely uneconomic to serve. However, given continuing development and deployment of more cost-efficient technology, it will become increasingly important for universal service policy to recognize that the grant of any amount of support may well deter entry or expansion by otherwise competitive service providers, to the ultimate detriment of consumers in a given region. Thus, the level of support in any area must be subject to on-going review and revision as necessary.

3. What is the appropriate role of states and state commissions with respect to universal service policy?

States and state commissions will continue to play an important role in administering the federal USF and ensuring that policy objectives are met. For example, states arguably are in the best position to determine which high-cost areas are truly unserved or underserved under the high cost/CAF program; and as regards the Lifeline program, states are in the front-line helping to ascertain Lifeline eligibility (*i.e.*, based on end users' participation in state-administered social welfare programs) and performing Lifeline outreach. It is also reasonable for States to remain responsible for designating carriers as Eligible Telecommunications Carriers (ETCs) for purposes of participating in federal universal service programs.

4. What is the appropriate role of the Federal-State Joint Board on Universal Service in a broadband, IP-enabled, largely interstate world? What is the appropriate role of related joint boards, such as the Federal-State Joint Board on Separations or the Federal-State Conference on Advanced Services?

Joint Boards can be expected to provide valuable advice and insights even in a “broadband, IP-enabled, largely interstate world.” State representatives are often more attuned

to local and regional situations, such as actual network investment and consumer concerns, than are their federal colleagues. To the extent that USF program administration is shared with state regulators, Joint Boards will be key to providing practical input about what implementation measures are feasible.

5. **The Universal Service Fund is one of several federal programs that support buildout of communications facilities. Are current programs at other federal agencies, like the National Telecommunications and Information Administration (which oversaw the Broadband Technology Opportunities Program) or the Rural Utility Service (which oversees lending programs and oversaw the Broadband Initiatives Program) necessary?**

The broadband programs administered by the National Telecommunications and Information Administration (NTIA) and the Rural Utilities Service (RUS) differ in focus and structure from the FCC's USF program. For example, both the Broadband Technology Opportunities Program (BTOP) and the Broadband Initiatives Program (BIP) loan/grants are of limited duration,³ and are funded from federal tax revenues, while the FCC's USF program (all grants, no loans) is more open-ended and is currently funded by contributions from telecommunications service subscribers. The three programs are complementary and doubtless have collectively promoted broadband buildout to more businesses, consumers, schools, and libraries than would have occurred had the FCC's program been the only federal universal service program available.

What should be retained from the BTOP and BIP programs, and applied to the FCC's high cost/CAF universal service program, is an important lesson learned: that making networks built with public funding available for wholesale access promotes the public interest. Certain

³ According to NTIA's *20th Quarterly Status Report* (released May 2014), as of December 31, 2013, "87 projects remained in active status, and 192 projects had completed their project activities." All BIP funds must be advanced by September 30, 2015 (see *RUS Status of Broadband Initiatives Program as of April 3, 2013*, p. 2).

non-incumbent BTOP recipients have been willing to use their subsidized networks to provide wholesale access services such as dark fiber, which has encouraged and allowed other carriers to initiate and expand their broadband offerings.

Congress should thus require that recipients of federal high cost universal service support funding for network construction, expansion or upgrades make the subsidized network available for the provisioning of wholesale services (including but not limited to Ethernet and dark fiber) to other service providers at rates, terms and conditions that are just, reasonable, non-discriminatory and cost-based.

6. How can we ensure that the Universal Service Fund is sufficiently funded to meet its stated goals without growing the fund beyond fiscally responsible levels of spending?

One of the most critical measures that will help ensure sufficient funding of the USF, while also improving congruity between services that contribute to and receive universal service support, is reform of the contribution mechanism. The contribution base must be broadened beyond telecommunications service revenues, which are shrinking (which places a severe burden on remaining contributors) and are becoming increasingly less relevant in a broadband world. The contribution mechanism also should be based on a readily measurable and verifiable metric, rather than on a factor (such as revenues) which is open to interpretation or manipulation, or is subject to potentially dramatic changes.

Minimizing waste, fraud, abuse, and inefficiencies in the USF programs also will help to ensure maximum public benefit from available funding. The FCC has recently stepped up its

audit and enforcement efforts,⁴ and has adopted reforms which will streamline program administration.⁵ Efforts to improve program efficiency and effectiveness are to be lauded. At the same time, however, the FCC must be cautious about adopting onerous program rules and excessively punitive measures to address even relatively minor infractions, as extreme measures may discourage service providers from participating in the various universal service programs, and may impose costs in excess of any likely benefit.

7. Are all of the funds and mechanisms of the current Universal Service Fund necessary in the modern communications marketplace?

Each of the four federal universal service funds (high cost/CAF, E-rate, Lifeline, and Rural Health Care) promotes important public interest benefits in different sectors. In light of the ongoing universal service needs in each sector, each of the four funds should be maintained. Congress and the FCC should be wary of proposals that disenfranchise one group or geographic area in order to benefit another group, both within a given fund (*e.g.*, giving a disproportionate amount of support to wireline carriers at the expense of wireless carriers) and across funds (*e.g.*, “raiding” the Lifeline fund to increase the E-rate fund).

⁴ For example, the FCC has formed a USF Strike Force to “protect the integrity of the Universal Service Fund and ensure that the American people’s money is wisely spent” (*see FCC Chairman Wheeler Announces Universal Service Fund Strike Force*, July 14, 2014).

⁵ For example, the FCC recently adopted changes to the E-rate program which, among other things, are designed to make the application process and other E-rate processes faster, simpler, and more efficient (*see Modernizing the E-rate Program for Schools and Libraries, Report and Order and Further Notice of Proposed Rulemaking*, released July 23, 2014 (FCC 14-99)).

- 8. In lieu of the current support mechanisms, could any of the programs be better managed or made more efficient by conversion to:**
- a. A state block grant program;**
 - b. A consumer-focused voucher program;**
 - c. A technology-neutral reverse auction; or,**
 - d. Any other mechanism.**

Support mechanisms that are competitively and technologically neutral will be more effective and efficient than approaches that give undue advantages to specific technologies or to a specific class of service provider. To maximize administrative efficiencies, a federal approach, rather than a state block grant program, should be maintained for interstate programs. Reverse auctions may well prove to be a better means of distributing CAF support than the “right of first refusal” approach, provided that the auction rules are genuinely neutral (for example, adopting performance standards which can be met by only wireline technologies, while ignoring the unique benefits provided by wireless technologies, cannot be considered technology-neutral).

A consumer-focused voucher program could result in a more efficient universal service mechanism. In areas that have been identified as high cost but are served by both wireline and wireless providers, giving customers vouchers and allowing them to use that voucher for whichever service they want would allow the two types of companies to compete on an equal footing, and would allow customers to choose which combinations of features – speed, mobility, functionality, etc. – they prefer. Even in areas where there is only one provider, giving customers vouchers would make it more possible for potential alternative providers to enter. Without the portability of support, a new entrant not only has to be lower cost than the incumbent to attract customers, but must also have costs that are lower than the incumbent’s by the amount of the subsidy. Providing vouchers directly to consumers would allow them to transfer that subsidy directly to the new entrant rather than the entrant having to build its network and then applying to be eligible to receive subsidy.

To ensure thorough vetting of the relative costs and benefits of a proposed change in the support mechanisms as suggested in this question, and to satisfy Administrative Procedure Act (APA) requirements, all proposals must be considered in a public notice and comment proceeding.



September 19, 2014

Comment on the Communications Act update and the Universal Service Fund

Distinguished members of the House Energy & Commerce Committee:

Listed below is a comment for submission from the Taxpayers Protection Alliance regarding the Universal Service Fund:

We thank House Energy and Commerce Committee Chairman Fred Upton (R-Mich.) and Communications and Technology Subcommittee Chairman Greg Walden (R-Ore.) for providing the opportunity for the Taxpayers Protection Alliance (TPA) to comment on how controlling the costs of the USF will be in the best interest of taxpayers, consumers and businesses. TPA believes that the Universal Service Fund (USF) is an outdated and costly feature of the Telecommunications Act that puts a significant and unnecessary burden on American consumers and taxpayers.

Fifteen years after its creation, it is time to fully re-evaluate the USF as a necessary tool of the Telecommunications Act. Studies over the past decade have seen large-scale waste and inefficiencies within the well-meaning program in excess of tens of billions of dollars. Most American taxpayers are unaware of the scale of this waste. If they did, they would demand these costs be brought under control and would be a required part of updating the Communications Act. Reform of the Universal Service Fund is not only a welcome procedure, but a necessary step in reigning in the out of control costs of the fund. As such, TPA would like to see the fund eliminated altogether, as it has truly outgrown its usefulness. But, in the absence of elimination; the goal must be to reduce costs to the consumer and institute much-needed oversight.

While for many, it is a positive step that the House Energy and Commerce Committee is even considering changes to the USF that would have it evolve from telephony to broadband. If that change merely expands the aging program, it could impose even higher costs on consumers. The cost of the USF has doubled from \$4 billion to \$8 billion over the last decade, and is set to double again in the coming years if nothing is done to cap or reform it. We welcome that this comment period gives many the opportunity to call to attention the grave injustice this is to consumers.

It follows that the way in which the House chooses to modernize the USF will have a profound effect on rural Americans. By only refocusing this program for the modern technology of broadband will not promote innovation or efficiency but rather, it will

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perpetuate an aging entitlement and increase costs to consumers and taxpayers. Any reform of the USF should effectively reduce the current high costs to consumers and, at a minimum, must cap the fund. Specifically, we must bring the USF's "High Cost Fund," under control in order to reduce unnecessary fees on monthly service bills that have no place in the modern communications marketplace. These universal service "fees" are mechanisms that place an enhanced burden on the average American family. Any reform of the USF that ultimately does not bring the "High Cost Fund" under control will be a complete failure.

As technology has become more and more advanced in recent years, it is necessary that the Universal Service Fund is modernized in a way that best suits American consumers and taxpayers, without placing additional burdens on the average citizen.

As lawmakers, when considering the overhaul of the Communications Act, you must take action in the best interest all constituents and see the need to rid the USF of wasteful funding mechanisms. The time for responsible and reasoned action is now.

Regards,



President
Taxpayers Protection Alliance





Comments of

TechFreedom¹

Berin Szoka, President

Tom Struble, Legal Fellow

In the Matter of

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 No. 14-126

September 4th, 2014

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Introduction & Summary

Today, a chill wind blows through Silicon Valley from the East. Through this inquiry,² the FCC reminds America's tech sector that it has claimed — through a preposterous re-interpretation of a previously obscure provision of the 1996 Telecommunications Act — authority to regulate any form of communications in any way that the Commission asserts will promote broadband. Instead of having to point to clear Congressional authorization, the Commission claims it need only explain why its regulations are “not inconsistent with other provisions of law.”³ The Commission insists that, technically, it need not formally declare, under Section 706(b), that broadband (technically, “advanced telecommunications capability”) is not “being deployed to all Americans in a reasonable and timely fashion,”⁴ but seems to feel that doing so will legitimize its use of Section 706 in general to regulate in ways Congress never intended.

So far, the FCC has used this newfound power to justify issuing net neutrality regulations and expanding Universal Service Funding to include broadband subsidies.⁵ This inquiry opens the door to FCC regulation of privacy and cybersecurity by asking how concerns about these issues affect broadband adoption.⁶ While Section 706 discusses broadband deployment and investment (not user adoption), the FCC based its Open Internet Order on the convoluted theory by which alleviating concerns about the “openness” of the Internet would ultimately increase (1) the production of content by edge providers, (2) adoption and use by consumers and thus (3) investment and deployment. This Rube-Goldberg theory of causation was dubbed a “triple-cushion shot.”⁷

If this attenuated logic was adequate to justify FCC regulation of net neutrality, there is no principled reason why it could not justify regulation of privacy and cybersecurity practices

² 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, *Tenth Broadband Progress Notice of Inquiry*, GN Docket No. 14-126 (Aug. 1, 2014) [“NOI”], available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0805/FCC-14-113A1.pdf.

³ Preserving the Open Internet Broadband Industry Practices, *Report and Order*, GN Docket No. 09-191, ¶ 119 (Dec. 23, 2010) [“Open Internet Order”], available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf.

⁴ See Telecommunications Act of 1996, Pub. L. No. 104-104, § 706(b), 110 Stat. 56, 153 (1996), as amended in relevant part by the Broadband Data Improvement Act, Pub. L. No. 110-385, 122 Stat. 4096 (2008) (codified as amended at 47 U.S.C. § 1302(b)).

⁵ *Verizon v. F.C.C.*, 740 F.3d 623 (D.C. Cir. 2014); *Direct Commc'ns Cedar Valley, LLC v. F.C.C.*, No. 11-9581, 59 (10th Cir. 2014) [Cedar Valley], available at <http://www.gpo.gov/fdsys/pkg/USCOURTS-ca10-11-09581/pdf/USCOURTS-ca10-11-09581-0.pdf>.

⁶ See NOI, ¶ 47.

⁷ See Open Internet Order, ¶¶ 124-32; see also *Verizon*, 740 F.3d at 643-44.

as well. In fact, it would be *easier* for the FCC to make such an argument, since the Commission could essentially skip the first step of the argument and argue simply that (1) allaying concerns about adoption will (2) drive deployment and investment. Indeed, a future FCC might use the same theory to regulate copyright enforcement, indecency, national security or any number of other potential concerns.

In short, the Commission has, by administrative fiat, transformed Section 706 from a command to use the authority specifically granted to the agency by Congress into a sweeping power to invent a new body of communications regulation. Importantly, this re-interpretation would authorize regulation not merely over traditional “telecom companies” but also over other “tech” companies as well, from Google, Twitter and Facebook to the countless startups building new apps and services. While some of the questions asked by the NOI are specifically about the practices of “broadband providers,” others are framed in more general terms.⁸ Regardless, in explaining its re-interpretation of Section 706 in the 2010 Open Internet Order, the FCC made no distinction as to the scope of its powers under Section 706⁹ — nor could such a distinction ever be anything other than a non-binding declaration of self-restraint: Since Section 706 is very plainly *not* written as a grant of authority, Congress had no need to specify over whom Section 706’s regulatory powers applied; Section 706 merely directed the FCC to use powers granted elsewhere in the act, each of which (to varying degrees) clarifies its scope, for the purposes of Section 706.¹⁰

Under the FCC’s theory, Section 706 allows the Commission to do far more than rework the Consumer Proprietary Network Information (CPNI) rules it applies to broadband providers.¹¹ However the Commission might demur today about its future intentions, it could use this unprecedented new power to insert itself into issues of privacy and security that have long been the bailiwick of the Federal Trade Commission, using its general Section 5 enforcement powers over deception and unfairness,¹² as well as the specific legislative grants of rulemaking authority over children’s privacy,¹³ credit reporting,¹⁴ and so on.

⁸ Compare NOI, ¶¶ 27, 29, 30, 43, & 47, with NOI, ¶¶ 3-26, 33-42, & 49-51.

⁹ Open Internet Order, ¶¶ 121-23.

¹⁰ See 47 U.S.C. §§ 151, 152 (giving the FCC authority over “interstate and foreign commerce in communication by wire and radio.”).

¹¹ 47 C.F.R. § 64.2001 et seq.

¹² Federal Trade Commission Act, ch. 311, § 5, 38 Stat. 717 (codified at 15 U.S.C. § 45).

¹³ Children’s Online Protection Privacy Act, Pub. L. No. 105-227, §§ 1301-08, 112 Stat. 2681 (codified at 15 U.S.C. §§ 6501-06).

¹⁴ Fair Credit Reporting Act, Pub. L. No. 90-321, 84 Stat. 874 (codified at 15 U.S.C. § 1681 et seq.).

Furthermore, the Commission need not actually exercise this power to have an essentially regulatory effect. A “chill wind” is not merely an omen of things to come, but a way of “sending a message” that the Commission has cast its roving eye over how *all* Internet companies collect, process and share data to provide the services increasingly taken for granted by American consumers. “Big Data” has made Silicon Valley a boom town, but entrepreneurs and investors involved in data-driven companies must now rest uneasy, wondering when the next shoe will drop. This regulatory uncertainty will necessarily affect their behavior.¹⁵ The next shoe to drop might be an enforcement action premised on Section 706, which could come at any time. This lack of formal rulemaking safeguards necessarily decreases the perceived distance of the regulatory “Sword of Damocles” that now hangs over the heads of the tech sector.

Nonetheless, the Commission is statutorily bound to conduct its broadband deployment inquiry under Section 706(b), and to report on those findings to Congress. Thus, the following brief comments are intended to guide the FCC on how it may best go about completing this process and ensuring the goals of Section 706 — promoting broadband deployment — are achieved, principally by fostering investment through reduced regulatory uncertainty.

Section 706 Simply Is Not an Independent Grant of Authority

We urge the FCC to recant its absurd 2010 re-interpretation of Section 706 as an independent grant of authority. A Section 706(b) Report would be as appropriate a place as any to do so. However, because such re-re-interpretation would not be binding on future Commissions, we urge the FCC to ask Congress to revisit Section 706 as part of a legislative package designed to give the Commission clear, specific and limited authority over net neutrality concerns, as well as other reforms intended to promote broadband deployment and, more generally, to move beyond the restrictive regulatory silos put in place by the 1934 Communications Act and, unfortunately, perpetuated by the 1996 Telecommunications Act.¹⁶

¹⁵ Importantly, since Section 706 speaks only in the vaguest terms about “regulating methods” and “tak[ing] immediate action,” there is apparently no reason why the Commission need undergo a formal rulemaking in order to “regulate” privacy or data security (or anything else the Commission decides slows broadband adoption). See 47 U.S.C. § 1302.

¹⁶ See TechFreedom & the International Center for Law & Economics (ICLE), *Letter to Chairman Upton & Chairman Walden Re: Response to White Paper #3* (June 6, 2014), available at <http://1.usa.gov/1xkZOyu>.

Section 706 transcends the regulatory silos of Titles II, III, and VI — which is somewhat obvious from its placement outside the Communications Act¹⁷ — in that it applies by its terms to “*any technology*” capable of delivering and originating “high-quality voice, data, graphics, and video telecommunications[.]”¹⁸ But using Section 706 as the legal basis for sweeping communications reform is fraught with peril.

For one, the empirical analysis on which FCC’s use of Section 706 rests is essentially arbitrary. In the 2010 Open Internet Order, the FCC made clear that it interprets *both* Section 706(a) *and* (b) as independent grants of authority.¹⁹ Thus, the Commission apparently need not actually make a negative finding under Section 706(b) before invoking authority purportedly granted by Section 706(a). Even if the Commission had not made such a finding in 2010, it could, by the FCC’s logic, have justified its 2010 Open Internet Order simply by offering the convoluted, Rube-Goldberg “triple-cushion shot” theory of causation by which regulation of broadband will, magically, increase broadband investment.²⁰

Nonetheless, it is surely no accident that the Commission’s Sixth Broadband Progress Report, which reversed the conclusions made by all other previous reports, was issued just five months before the FCC’s Open Internet Order. Perhaps aware of the arbitrariness of *any* use of Section 706 as the legal basis for regulation, the Commission may simply have been trying to create a veneer of analytical rigor, the illusion of deliberative process. Soliciting comments and having to issue a formal report may indeed somewhat raise the analytical bar for the Commission in justifying itself — but not by much.

Section 706 as Political Football

In addition to the uncertainty inherent in Section 706 due to the uncertain reach of its potential scope, regulation based on Section 706 also promotes regulatory uncertainty because the regulatory process for conducting and reporting on the inquiry in Section 706(b) is largely unpredictable, with the Commission apparently able to raise or lower the regulatory bar whenever doing so suits its political agenda.

Section 706 does not define broadband (technically, “advanced telecommunications capability”), other than as a “capability that enables users to originate and receive high-

¹⁷ Section 706 of the Telecommunications Act of 1996 was added to Chapter 12 of Title 47, whereas the Communications Act and most of the Telecommunications Act is contained in Chapter 5 of Title 47 (although these provisions have not yet been codified into positive law).

¹⁸ See 47 U.S.C. § 1302(d)(1) (emphasis added).

¹⁹ Open Internet Order, ¶¶ 119, 123.

²⁰ See *id.*, ¶¶ 124-32; see also *Verizon v. F.C.C.*, 740 F.3d at 643-44.

quality voice, data, graphics, and video telecommunications using any technology.”²¹ This leaves it to the Commission to set minimum thresholds for speed and performance to define that capability, and to determine what quality of service is sufficient for “high-quality” telecommunications in its 706(b) inquiries.²² Section 706 also provides little guidance on any of the terms in the key phrase “being deployed to all Americans in a reasonable and timely fashion.”²³ Thus, the Commission has vast discretion under *Chevron v. Natural Resources Defense Council*²⁴ to define inputs and establish metrics however will best suit the agency’s policy agenda.

Throughout its previous Section 706(b) reports, the Commission has tried to establish specific analytical framework and technical metrics with which broadband deployment can be measured,²⁵ but the rapidly evolving nature of broadband and IP-based services necessitates frequent reconsideration and modification of those metrics. In theory, a Commission bent on a particular regulatory agenda could, through such modifications, manipulate the available data to draw whatever conclusion suits its predetermined political agenda.²⁶ Indeed, the coincidence in 2010 of the FCC’s first negative finding under Section 706(b) and its issuance of the Open Internet Order five months later is certainly enough to raise a few suspicious eyebrows — and signal the Commission’s willingness to reverse-engineer its Section 706(b) analysis of the market to justify preconceived regulatory objectives.

However, while various methodological modifications and statistical techniques might be used to advance the particular policy agenda of one Commission (if three commissioners approve), such political wrangling would inevitably swing both ways. The central problem with broad administrative discretion is that those gripping the sword today may find it at their necks tomorrow. For example, as we recently noted in our joint comments with the International Center for Law & Economics on the FCC’s Public Notice about preempting

²¹ 47 U.S.C. § 1302(a)-(d).

²² 47 U.S.C. § 1302(d)(1).

²³ 47 U.S.C. § 1302(b).

²⁴ 467 U.S. 837 (1984).

²⁵ See, e.g., *Sixth Broadband Deployment Report*, ¶¶ 9-15 (discussing the history of the FCC’s broadband benchmarking under Section 706(b) and explaining the switch to the 4 Mbps download and 1 Mbps upload benchmark).

²⁶ For example, if the data showed that all Americans have access to multiple broadband providers at a given level of throughput (e.g., 4 mbps down and 1 mbps up), an activist Commission--intent on retaining as much legal authority as possible--could say that only 5 mbps or greater qualifies as “advanced” and thereby report a negative finding under Section 706(b). Conversely, a restrained Commission — intent on maintaining a “light touch” or simply avoiding claims of authority not clearly authorized by Congress— could say that a lower level of throughput is sufficient to qualify as “advanced” under Section 706(b), or that a given pace of deployment is “reasonable and timely” and thereby report a positive finding under Section 706(b).

state laws preempting state laws governing municipal broadband, if the FCC can justify preempting such laws today as facilitating broadband deployment, a future FCC could reach precisely the opposite conclusion under Section 706, *banning muni broadband completely* based on the general (and intuitive) conclusion that private companies are better able to operate and provide innovative upgrades to broadband networks than government agencies, and allowing government entities to compete alongside private companies may significantly deter aggregate broadband investment in the long run, ultimately resulting in harm to consumers and delayed broadband deployment.²⁷ Thus, the Commission should proceed with deliberate caution in conducting its Section 706(b) inquiry, and in trying to issue any potential rules or take other informal regulatory action based on its authority.

The Commission's Notice of Inquiry cites a 2010 Commission staff paper as suggesting that concerns about privacy and security may help to explain the reluctance of many Americans to adopt broadband.²⁸ In principle, this is a perfectly legitimate inquiry: Congress did

²⁷ See Pleading Cycle Established for Comments on Electric Power Board & 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, *Comments of International Center for Law & Economics & TechFreedom*, WCB Docket Nos. 14-115 & 14-116, at 10-12 (Aug. 29, 2014), available at <http://apps.fcc.gov/ecfs/document/view?id=7521826211>; see also Remarks of Matthew Berry, Chief of Staff to FCC Comm'r Ajit Pai, at the Nat'l Conference of State Legislatures' 2014 Legislative Summit (Aug. 20, 2014), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0820/DOC-328916A1.pdf ("It's not hard, then, to imagine a future FCC concluding that taxpayer-funded, municipal broadband projects themselves are barriers to infrastructure investment. So if the current FCC were successful in preempting state and local laws under Section 706, what would stop a future FCC from using Section 706 to forbid states and localities from constructing any future broadband projects? Nothing that I can see.").

²⁸ NOI, ¶ 47 ("A 2010 Commission staff paper found 78 percent of those that responded to a 2009 survey were already Internet users and 65 percent were broadband users and that 39 percent of broadband users expressed security concerns, while non-adopters were almost 50 percent more likely than broadband users to raise concerns about security of personal information online. The staff paper also deduced that "[t]his is one factor linked to their lower likelihood of adoption" and there was "significant positive correlation between high levels of worries about personal privacy and non-adoption" of broadband. We seek comment on the staff paper, including the use of a consumer survey as a basis for such findings and whether the work can be validated. What is the correlation between such worries and non-adoption today? Are there other more recent studies or surveys that may complement or contradict the staff paper's findings? How does the data from 2009 compare to the Commission's recent status reports on Internet Access Services? Are there differences in levels of concern in accessing the Internet in general, as compared to accessing it via broadband? If so, what would justify these differences? What is the relevance of privacy and/or security to our section 706(b) determination? Do concerns over personal privacy or security deter consumers from adopting broadband? If so, how are broadband providers addressing these concerns? What other factors or concerns about privacy and security may account for broadband adoption by consumers? Do these other factors have a greater correlation to the lower likelihood of adoption and deployment? What do consumers know about providers' current privacy or security practices and how much of their understanding is accurate?")

indeed ask the FCC, as its expert agency on communications policy, to apply its expertise to an annual study of factors that may retard broadband deployment.²⁹ And the Commission may well be correct that privacy and security concerns are real barriers to connecting, in particular, older and poorer Americans. But as a policy matter, the Commission should exercise that discretion carefully — lest even seemingly minor administrative shifts in framing of the Commission’s standards under Section 706 be used to justify major shifts in broadband policy, which could disrupt broadband investment and deployment, and thus harm consumers.

The Commission’s Broadband Reporting Process

Since Section 706(b) was enacted, the FCC has conducted multiple inquiries and issued several reports. In the first (1999),³⁰ second (2000),³¹ third (2002),³² fourth (2004),³³ and fifth reports (2008),³⁴ the FCC determined that broadband was being deployed to all Americans in a reasonable and timely fashion. Then, beginning with the sixth report (2010), the Commission changed course, and found that "broadband deployment to *all* Americans [had

What information do broadband providers voluntarily share with consumers about their privacy and security practices, including regarding their security risk management programs? If privacy and/or security statements are offered voluntarily, are there any obligations, contractual or otherwise, for broadband providers to comply with such commitments? Are there other obligations regarding privacy and/or security which broadband providers may be subject? If so, what are these, and what relevance, if any, would they have to our determination? What is the relationship, if any, between increased consumer awareness of online privacy and security practices and adoption of broadband? How, if at all, do the answers to these questions differ between urban and rural consumers, or between customers of large or small companies?").

²⁹ See 47 U.S.C. § 1302.

³⁰ 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, *Report*, CC Docket No. 98-146 (Jan. 28, 1999), available at <http://www.fcc.gov/reports/first-broadband-progress-report>.

³¹ 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, *Second Report*, CC Docket No. 98-146 (Aug. 3, 2000), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-00-290A1.pdf.

³² 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, *Third Report*, CC Docket No. 98-146 (Feb. 6, 2002), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-02-33A1.pdf.

³³ Availability of Advanced Telecommunications Capability in the United States, *Fourth Report to Congress*, GN Docket No. 04-54 (Sept. 9, 2004), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-04-208A1.pdf.

³⁴ 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, *Fifth Report*, GN Docket No. 07-45 (Mar. 19, 2008), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-08-88A1.pdf.

not been] not reasonable and timely."³⁵ The Commission's 2011 finding was the same, in its seventh report,³⁶ and a negative finding also followed in the eighth report (2012).³⁷ Then, somewhat curiously, the ninth broadband deployment progress report was circulated amongst Commission staff, but was never adopted, so no report to Congress was ever made on it.³⁸ The obvious inference is that the Commission simply chose not to approve the report for political reasons, perhaps having to do with the D.C. Circuit's *Verizon* decision, which was expected to come down at any time.

But regardless of that aberration, the trend lines are pretty clear: Broadband deployment was going swimmingly from 1998 to 2010, but then took a sharp downturn and has yet to recover – according to the FCC. While this narrative fit the FCC's new post-2009 regulatory agenda, it did not fit the facts in the real world. In fact, there have been multiple commercial developments and technical innovations since the year 2010 that have allowed broadband providers to deliver ever better and faster services to their consumers. Most notably, cable companies completed upgrades to the DOCSIS 3.0 standard, allowing them to provide speeds up to 1.5 Gbps downloads and 150 Mbps uploads;³⁹ mobile wireless providers upgraded their networks to 4G LTE, allowing them to provide speeds up to 300 Mbps downloads and 75 Mbps uploads;⁴⁰ average satellite broadband speeds increased hugely as Ka-band satellites began to replace Ku-band satellites;⁴¹ Verizon

³⁵ 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, *Sixth Broadband Deployment Report*, GN Docket No. 09-137, ¶ 2 (July 16, 2010) [*Sixth Broadband Deployment Report*] (emphasis in original), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-10-129A1_Rcd.pdf.

³⁶ 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, *Seventh Broadband Progress Report & Order on Reconsideration*, GN Docket No. 10-159 (May 20, 2011), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-11-78A1.pdf.

³⁷ 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, *Eighth Broadband Progress Report*, GN Docket No. 11-121 (Aug. 14, 2012), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-12-90A1.pdf.

³⁸ See NOI, ¶ 2, n. 5.

³⁹ Ryan Whitwam, *DOCSIS 3.1 Could Let Cable Companies Compete with Google Fiber*, GEEK (Oct. 31, 2013), available at <http://www.geek.com/news/docsis-3-1-could-let-cable-companies-compete-with-google-fiber-1575770/>.

⁴⁰ Sonia Rathi, et al. *Throughput for TDD & FDD 4G LTE Systems*, 3 INT'L J. OF INNOVATIVE TECH. & EXPLORING ENGINEERING 73 (May 2014), available at <http://www.ijitee.org/attachments/File/v3i12/L16590531214.pdf>.

⁴¹ See, e.g., ViaSat, *High-Capacity Satellite System* (last visited Sept. 4, 2014), available at <https://www.viasat.com/broadband-satellite-networks/high-capacity-satellite-system> (discussing the various

completed most of its deployment of FiOS,⁴² while other telcos have upgraded or have begun upgrading their twisted-copper infrastructure to VDSL, which delivers download speeds of up to 52 Mbps and upload speeds up to 16 Mbps;⁴³ fiber companies like Google Fiber and Sonic.net deployed a third fiber pipe, prompting telcos to begin deploying fiber to the home as Verizon had done;⁴⁴ and finally, increased fiber deployment across the board forced cable companies to increase speeds in many urban markets.⁴⁵ However, despite those tremendous advances in deployment, investment and competition (the three clear criteria of Section 706(b)), the Commission has yet to issue a positive finding under Section 706(b) since, in 2010, it adopted the new speed test of 4 Mbps download and 1 Mbps upload as the benchmark for testing the level of broadband deployment.⁴⁶ The Commission now proposes to increase that benchmark to a 10 Mbps download speed.⁴⁷ As in 2010, the Commission now proposes to increase the 706(b) benchmark as a way of updating it to reflect consumers' changed usage habits.⁴⁸ Thus, the Commission now proposes to use a 10 Mbps benchmark because that is enough throughput to accommodate the broadband needs of a "Moderate Use Household."⁴⁹ This new benchmark may be a better threshold for determining the degree of broadband deployment, but as IP-based services continue to increase in quality, they will demand increasing throughput in order to maintain a high quality of experience for end-users, meaning that the benchmark threshold will have to be continually adjusted upward, which potentially raises a number of problems.

Enduring Metrics for the Future

The problem with the FCC's *Sixth Broadband Progress Report* was not its conclusion: "Reasonable and timely deployment" is obviously a moving target that will necessarily depend on consumer demands. As consumers' expectations of speed grow, it might well be

benefits of the recently implemented Ka-band satellite system, capable of delivering 100 times the capacity of the Ku-band system, with 134 Gbps total throughput).

⁴² Peter Svensson, *Verizon Winds Down Expensive FiOS Expansion*, USA TODAY (Mar. 26, 2010), available at http://usatoday30.usatoday.com/money/industries/telecom/2010-03-26-verizon-fios_N.htm.

⁴³ Jeff Tyson, *How VDSL Works*, HOWSTUFFWORKS? (last visited Sept. 4, 2014), available at <http://computer.howstuffworks.com/vdsl2.htm>.

⁴⁴ Jess Bolluyt, *AT&T Beats Google to Expand Fiber Internet to North Carolina*, TECHCHEATSHEET (June 20, 2014), available at <http://wallstcheatsheet.com/technology/att-beats-google-to-expand-fiber-internet-to-north-carolina.html/?a=viewall>.

⁴⁵ Jeff Baumgartner, *Cox Kicks Off Speed Upgrades*, MultiChannelNews (July 17, 2014), available at <http://www.multichannel.com/news/technology/cox-kicks-speed-upgrades/382578>.

⁴⁶ *Sixth Broadband Deployment Report*, ¶ 5.

⁴⁷ NOI, ¶ 14.

⁴⁸ See *id.*, ¶ 14-15.

⁴⁹ *Id.*, ¶ 14.

reasonable, at some point, for the Commission to conclude that broadband supply has essentially failed to keep pace with demand.⁵⁰

The problem — besides claiming that Section 706 is itself a grant of authority — is that the Commission has lost sight of what its analytical focus is supposed to be under Section 706. Section 706 does not even mention “adoption” or any equivalent concept — only broadband deployment, investment and competition. Yet the Commission in the NOI, as it did in the Open Internet Order, seems ready to rush into the contentious (and already heavily regulated — by the FTC and other agencies) issues of privacy and security, rather than focusing on clear, objective measures of the things Section 706 actually talks about: How much investment is taking place? Is the market growing more or less concentrated (such as measured by summing the squares of percentage market shares to produce an HHI index)? Is competition succeeding in driving up speeds and other measures of quality relative to price?

There is good reason for optimism that deployment has actually flourished. The FCC’s own Measuring Broadband America Report on Fixed Broadband, based on June 2013 data notes that:

those ISPs using DSL technology show little or no improvement in maximum speeds, with the sole exception of Qwest/Centurylink, which this past year doubled its highest download speed within specific market areas. The reason for this may be that DSL, unlike cable and fiber technologies, is strongly dependent upon the length of the copper wire (or “loop”) from the residence to the service provider’s terminating electronic equipment, such that obtaining higher data speeds would require companies to make significant capital investments across a market area to shorten the copper loops.⁵¹

The Commission missed the critical point: CenturyLink was merely the first big telco to upgrade its network from offering ADSL (1-6 Mbps) to VDSL2 (20-100 Mbps).⁵² AT&T has

⁵⁰ See *Sixth Broadband Deployment Report*, ¶ 4.

⁵¹ FCC Office of Eng’g & Tech. & Consumer & Governmental Affairs Bureau, *A Report on Consumer Wireline Broadband Performance in the U.S.* (June 2014), available at <http://www.fcc.gov/reports/measuring-broadband-america-2014 - Chart19>.

⁵² See, e.g., Sean Buckley, *Report: CenturyLink to Deliver 100 Mbps VDSL2 Service*, FIERCETELECOM (Apr. 10, 2012), available at <http://www.fiercetelecom.com/story/report-centurylink-deliver-100-mbps-vdsl2-service/2012-04-10> (describing CenturyLink’s planned upgrades).

already begun upgrading its own network⁵³ and other telcos are following suit.⁵⁴ These upgrades help to explain why DSL providers have actually been adding subscribers at far higher rates than cable operators. Even in 2Q2013, AT&T added more DSL subscribers than Comcast, Time Warner Cable and Charter combined (731,000 v 663,000).⁵⁵ These are the kind of metrics the Commission should be focused on. What clearer evidence could there be that broadband is “being deployed to all Americans in a reasonable and timely fashion” than that telco, third-pipe fiber companies and wireless broadband are gaining market share relative to cable, the market leader, by offering higher speeds, and that cable providers are responding in kind by raising their own speed offerings? Would not the continued annual investment among all these providers indicate a reasonable level of success?

If, instead, the Commission is to focus on speed numbers, it must take care to avoid setting arbitrary goals based on its assertions as to what Americans *should* be doing with broadband, and instead focus on what they are *actually* doing with broadband. The “all Americans” language in Section 706 could reasonably be interpreted to imply a Congressional concern for some degree of equality of opportunity across geographic and socioeconomic lines to access broadband at affordable prices — although, again, Section 706 does not actually refer to adoption, and since 2/3 of non-broadband-adopters say they will not adopt broadband at any price, it would be hugely over-simplistic to suggest that broadband simply is not being deployed at a low enough price. In fact, the FCC has already identified a host of other factors around perceived relevance and digital literacy that must be addressed.⁵⁶ These are indeed problems, but they are not properly within the scope of Section 706’s focus: broadband deployment, investment and competition. For example, instead of simply deciding that “advanced telecommunications capability” must include the ability to stream Netflix, the Commission could focus on actual broadband usage patterns among an adequately large percentage of households in areas that have already received the benefit of “reasonable and timely” broadband deployment — and then ask

⁵³ Jeff Baumgartner, *AT&T's to Bring 'GigaPower' to St. Louis*, MULTICHANNELNEWS (Sept. 9, 2014), available at <http://www.multichannel.com/news/technology/att-s-bring-gigapower-st-louis/383511>.

⁵⁴ Jeff Baumgartner, *Charter Bumps Entry-Level Speed to 100-Meg in St. Louis*, MULTICHANNELNEWS (JUNE 16, 2014), available at <http://www.multichannel.com/news/technology/charter-bumps-entry-level-speed-100-meg-st-louis/375177>.

⁵⁵ Bernie Arnason, *AT&T is Crushing Cable: Is Super Fast Broadband Really Necessary*, TELECOMPETITOR (July 24, 2013), available at <http://www.telecompetitor.com/att-is-crushing-cable-is-super-fast-broadband-really-necessary/>.

⁵⁶ See Josh Gottheimer & Jordan Usdan, Chairman's Office, *FCC & Connect To Compete Tackle Broadband Adoption Challenge* (Oct. 13, 2011), available at <http://www.fcc.gov/blog/fcc-and-connect-compete-tackle-broadband-adoption-challenge>.

whether the rest of the country is catching up in a “reasonable and timely” fashion. If properly applied, this methodology would reflect the basic reality that broadband deployment will always proceed faster in some markets than in others, and that policies designed to ensure equal deployment everywhere would slow broadband deployment overall, thus harming consumers in the name of perfect equality.⁵⁷

What minimum speed threshold might such a methodology suggest today? As a first approximation of an answer, consider just Google Fiber subscribers. This would be far too narrow a sample for a Section 706(b) inquiry, but since Google Fiber is the fastest service on the U.S. market today, it is illustrative. What speed levels do Google Fiber subscribers actually use? Since the Commission is obsessively focused on streaming Netflix, it is worth noting that, even on Google Fiber’s 1,000 gbps service, Netflix still streams, on average, at between 3.5 and 3.65 mbps⁵⁸ — not significantly higher than some cable companies, and only 25% faster than, say, Comcast (2.82 mbps in July 2014).⁵⁹ These are, of course, average streaming speeds and it is possible that they reflect a mix of Standard Definition (SD) and High Definition (HD) streaming. But if, even on Google Fiber, where presumably there would be no reason to stream anything other than HD, users are still streaming only 3.5-3.65 mbps on average, should this number not give us some sense of the outer boundary of current actual bandwidth needs?

The Chairman, in a speech delivered on the day comments in this proceeding were due, asserted that “Four megabits per second isn’t adequate when a single HD video delivered to home or classroom requires 5 Mbps of capacity.”⁶⁰ Tell that to Google Fiber — or Netflix, whose online “Internet Connection Speed Recommendations” page clearly specifies:

3.0 Megabits per second - Recommended for SD quality

5.0 Megabits per second - Recommended for HD quality⁶¹

⁵⁷ It is worth noting that, as approved by the 10th Circuit Court of Appeals in Cedar Valley, *supra* note 5, broadband is now included under the Commission’s Universal service principles, but even those principles recognize that access in rural and high cost areas need only be reasonably comparable to the quality and cost of access in urban areas. 47 U.S.C. § 254(b)(3).

⁵⁸ See Netflix, *USA ISP Speed Index Results Graph* (April 2014 – July 2014) (last visited Sept. 4, 2014), available at <http://ispspeedindex.netflix.com/results/usa/graph>.

⁵⁹ *Id.*

⁶⁰ Prepared Remarks of FCC Chairman Tom Wheeler at 1776 Headquarters, Washington, DC, *The Facts & Future of Broadband Competition* (Sept. 4, 2014), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0904/DOC-329161A1.pdf.

⁶¹ Netflix, *Internet Connection Speed Recommendations* (last visited Sept. 4, 2014), available at <https://help.netflix.com/en/node/306>.

This strange error simply highlights the dangers of relying on assertions about what is “required” rather than looking at *actual* use. If the Commission persists in inventing minimum standards of use rather than distilling them from actual use patterns, this kind of problem will persist in the future, with the Commission perpetually revising its threshold according to arbitrary criteria that do not reflect actual usage. Instead, the Commission should develop a methodology that can remain constant as the data changes, such as by sampling *actual* peak bandwidth *usage* (not purchased speeds) among all users in a the top, say, 25% fastest broadband markets, and asking how speeds in the rest of the country compare with those speeds. Measuring broadband deployment using a metric such as this, which relies more on standard deviation than upon any arbitrary minimum baseline level of throughput, would be a much more enduring way to measure whether the level and degree of broadband deployment overall, since it would be less subject to the skewing effect of outlying super-users⁶² and more representative of the average and typical broadband usage and need. Additionally, such a metric would be less manipulable by future Commissions of differing political views, because such a metric would not need periodic adjustments to keep up with increasing bandwidth usages and needs since those would automatically be incorporated into any calculation of standard deviation, as it is based on both the mean and spread of a given data set. We strongly encourage the Commission to consider this, or another similar metric to replace the speed benchmarking it has been using in its Section 706(b) inquiries to date.

⁶² For example, Netflix now offers Ultra HD 4K video streaming to some of its customers — the ones able to afford an Ultra HD 4K capable television — which purportedly takes up 25 Mbps of throughput. *Id.* That activity, perhaps on multiple different devices at once along with other IP-based activities, could push the upward limits of many ISPs’ service offerings, but the proportion of consumers able to afford and adopt these activities will surely remain a small minority for the immediate future, and that subgroup may never outgrow the subgroup of users who consumer little if any broadband and have no interest in subscribing to higher speeds than a few Mbps up or down.

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In the Matter of

*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*

WCB Docket Nos. 14-115 and 14-116

August 29, 2014

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I. Introduction & Summary

On July 24th, 2014, the Electric Power Board (EPB) of Chattanooga, Tennessee, and the City of Wilson, North Carolina, filed separate petitions with the Federal Communications Commission (“FCC” or “Commission”), each asking the FCC to use the authority the FCC has claimed under Section 706 of the Telecommunications Act of 1996³ to preempt state laws in Tennessee and North Carolina restricting the deployment of municipally-owned broadband networks.⁴ Just four days later, the Commission released a Public Notice⁵ establishing the current comment cycle, giving interested parties scantily over a month’s time to review and respond to the complex and voluminous petitions, despite the litany of other important and intricate issues currently before the FCC.⁶

TechFreedom, ICLE, and seven other organizations — many of which are small operations with limited resources — filed a request seeking to have the comment deadline in this proceeding

³ Telecommunications Act of 1996, Pub. L. No. 104-104, § 706, 110 Stat. 56, 153 (1996), as amended in relevant part by the Broadband Data Improvement Act, Pub. L. No. 110-385, 122 Stat. 4096 (2008) (Codified as amended at 47 U.S.C. § 1302).

⁴ See Petition Pursuant to Section 706 of the Telecommunications Act of 1996 for Removal of State Barriers to Broadband Investment and Competition, filed by Electric Power Board, Chattanooga, Tennessee, WC Docket No. 14-116 (filed July 24, 2014) [“EPB Petition”], available at <https://www.epb.net/downloads/legal/EPB-FCCPetition.pdf>; Petition Pursuant to Section 706 of the Telecommunications Act of 1996 for Removal of State Barriers to Broadband Investment and Competition, filed by City of Wilson, North Carolina, WC Docket No. 14-115 (filed July 24, 2014) [“Wilson Petition”], available at <http://www.baller.com/pdfs/wilson706petition.pdf>.

⁵ Pleading Cycle Established for Comments on Electric Power Board & 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, *Public Notice*, WCB Docket Nos. 14-115 & 14-116 (July 28, 2014), available at https://apps.fcc.gov/edocs_public/attachmatch/DA-14-1072A1.pdf.

⁶ See, e.g., Protecting and Promoting the Open Internet, *Notice of Proposed Rulemaking*, GN Docket No. 14-28 (May 15, 2014), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-14-61A1.pdf (reply comments due September 10th); Commission Seeks Comment on Applications of Comcast Corporation, Time Warner Cable Inc., Charter Communications, Inc., & Spinco to Assign & Transfer Control of FCC Licenses & Other Authorizations, *Public Notice*, MB Docket No. 14-57 (July 10, 2014), available at https://apps.fcc.gov/edocs_public/attachmatch/DA-14-986A1.pdf (Comments/Petitions due August 25th, and Responses to Comments/Oppositions to Petitions due September 23rd); 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, *Tenth Broadband Progress Notice of Inquiry*, GN Docket No. 14-126 (Aug. 1, 2014), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0805/FCC-14-113A1.pdf (comments due September 4th and reply comments due September 19th); Commission Seeks Comment on Applications of AT&T Inc. & DirecTV to Transfer Control of FCC Licenses & Other Authorizations, *Public Notice*, MB Docket No. 14-90 (Aug. 7, 2014), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0807/DA-14-1129A1.pdf (comments/petitions due September 16th).

extended,⁷ but this request was summarily denied.⁸ Thus, due to time and resource constraints, the following comments will not address each and every point raised by the two petitions. Rather, these comments will address a few discrete points — including (1) the legal authority for Federal preemption in this case, and (2) the policy implications raised by the two petitions — before offering some general advice to the Commission: Deny the petitions of EPB and Wilson; issue a Notice of Inquiry to gather further data on the efficacy of government-run broadband networks; and, in the meantime, focus on broadband deployment initiatives that have gathered more consensus (*e.g.*, promoting “Dig Once” policies, extending pole-attachment rights to broadband-only providers, and encouraging intermodal facilities-based competition, such as by maximizing the reallocation of spectrum for wireless broadband). We also note the unique dangers posed by increasing control over broadband, particularly in terms of censorship, surveillance, and other kinds of privacy invasions.

II. The Commission Lacks Authority to Intrude Upon the Sovereignty of the States in this Case

Principles of federalism have been engrained in the legal history of the United States for hundreds of years, and can be traced directly to two separate provisions of the Constitution: the Supremacy Clause⁹ and the Tenth Amendment.¹⁰ The Supremacy Clause dictates that Federal laws “shall be the supreme law of the land[.]”¹¹ while the 10th Amendment provides that any powers not granted to the Federal government by the Constitution shall be “reserved to the states respectively, or to the people.”¹²

The relationship between these two Constitutional provisions has been sussed out by the courts over the years, and has essentially taken two forms: field preemption, and conflict preemption. With field preemption, Federal laws will be deemed to preempt and supplant any

⁷ TechFreedom, et al., *Re: Filing Deadline Extension Request*; 47 C.F.R. § 1.46(b), WCB Docket Nos. 14-115 & 14-116 (Aug. 20, 2014), available at <http://apps.fcc.gov/ecfs/document/view?id=7521784261> (asking for a one-month extension to the comment filing deadline).

⁸ 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 & Competition; 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 & Competition, *Order*, WC Docket Nos. 14-115 & 14-116 (Aug. 27, 2014), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0827/DA-14-1246A1.pdf (denying the request for extension).

⁹ U.S. Const. art. VI, cl. 2.

¹⁰ U.S. Const. amend. X.

¹¹ U.S. Const. art. VI, cl. 2.

¹² U.S. Const. amend. X.

related state laws if the text of the Federal laws clearly indicate that Congress intended Federal laws to govern the entire area.¹³ However, if it is unclear whether Congress intended a Federal law to preempt the entire regulatory field, state laws will be upheld and enforced alongside the Federal law, so long as the two are not in direct conflict.¹⁴ If the laws *are* in conflict, or if the state law frustrates the purposes of the Federal law, then, by way of the Supremacy Clause, the Federal law trumps the state law.¹⁵

In the two petitions, EPB and Wilson ask the FCC to use the statutory authority the FCC has claimed it possesses under Section 706 of the Telecommunications Act of 1996 to preempt state laws in Tennessee and North Carolina, respectively, that impose certain restrictions on the build-out of government-owned broadband networks.¹⁶ The question, then, is whether Section 706 provides sufficient authority for the FCC to preempt the state laws in question, either because (a) Section 706 clearly indicates that Congress intended it to be the supreme law of the land in regards to broadband deployment, and all state laws on the topic are preempted (under the legal theory of field preemption), or (b) the laws in question directly conflict with the statutory language of Section 706, and thus the state laws cannot be enforced concurrently with the Federal law, meaning that they must be preempted (under the legal theory of conflict preemption). Each of these possibilities shall be discussed in turn, before turning to the policy implications raised by the two petitions.

A. Section 706 Does Not Provide Sufficient Legal Authority to Sustain a Claim of Field Preemption

As we recently explained in our comments on the FCC's Open Internet Notice of Proposed Rulemaking (attached here in relevant part as Appendix A), we believe that Congress intended Section 706 to be a command to the FCC to use powers granted elsewhere in the act to promote broadband deployment, and is not in itself an independent grant of authority.¹⁷ Rather, Section 706 is a *constraint* upon the FCC, a requirement that the FCC give special

¹³ See, e.g., *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 507-08 (1996) (“[O]rdinary principles of ‘conflict’ and ‘field’ preemption . . . make clear that a federal requirement pre-empts a state requirement if (1) the state requirement actually conflicts with the federal requirement — either because compliance with both is impossible, or because the state requirement ‘stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress,’ — or (2) the scheme of federal regulation is ‘so pervasive as to make reasonable the inference that Congress left no room for the States to supplement it.’”) (internal citations omitted).

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ See EPB Petition, at 1; Wilson Petition, at 2.

¹⁷ See Protecting & Promoting the Open Internet, *TechFreedom & ICLE Legal Comments*, GN Docket No. 14-28, at 62-91 (July 17, 2014), available at <http://apps.fcc.gov/ecfs/document/view?id=7521706235>.

weight to the goal of maximizing broadband deployment, and a hook for outside parties to *compel* the FCC to pursue that goal through a judicial petition for *mandamus*, should the FCC fail to do so.¹⁸ This is consistent with the FCC's original 1998 interpretation of Section 706, and we believe it is the only one the statute will bear:

After reviewing the language of section 706(a), its legislative history, the broader statutory scheme, and Congress' policy objectives, we agree with numerous commenters that section 706(a) does not constitute an independent grant of forbearance authority ***or of authority to employ other regulating methods***. Rather, we conclude that ***section 706(a) directs the Commission to use the authority granted in other provisions***, including the forbearance authority under section 10(a), to encourage the deployment of advanced services.¹⁹

It is true that in the past year the D.C. Circuit and Tenth Circuit have concluded otherwise.²⁰ However, neither court appeared to seriously consider the host of questions raised by the FCC's new interpretation.²¹ The D.C. Circuit concluded that Section 706 *was* an independent grant of authority, but that the FCC had abused that authority by violating a provision of the 1934 Communications Act (the prohibition on imposing common carriage status on non-common carriers under Title I) — yet did not even bother to consider the FCC's argument that, since the Telecommunications Act of 1996 did not incorporate Section 706 into the 1934 Act, Section 706 is not constrained by the limits of the 1934 Act.²² This would be, of course, an absurd result, but it is not obviously any more absurd than the FCC's claim that Congress hid in the 1996 Act the power to essentially craft a new Communications Act within the constraints of the old one.

¹⁸ *Id.* at 80.

¹⁹ Deployment of Wireline Services Offering Advanced Telecommunications Capability, *Memorandum Opinion and Order, and Notice of Proposed Rulemaking*, CC Docket No. 98-147, at ¶ 69 (1998) [Advanced Services Order] (emphasis added), available at http://transition.fcc.gov/Bureaus/Common_Carrier/Orders/1998/fcc98188.pdf.

²⁰ See *Verizon v. F.C.C.*, 740 F.3d 623 (D.C. Cir. 2014) [*Verizon*]; *Direct Commc'ns Cedar Valley, LLC v. F.C.C.*, No. 11-9581 (10th Cir. 2014) [*Cedar Valley*], available at <http://www.gpo.gov/fdsys/pkg/USCOURTS-ca10-11-09581/pdf/USCOURTS-ca10-11-09581-o.pdf>.

²¹ See *id.* Indeed, the Tenth Circuit's analysis of this issue is clearly non-binding *dicta*, as it was not necessary for the holding of that case — and received scant analysis. *Cedar Valley*, at 59.

²² *Verizon*, 740 F.3d at 640.

This is, of course, not the proper forum to fully debate what the most accurate interpretation of Section 706 is – under *Chevron* or otherwise.²³ However, this discussion does indicate that substantial disagreement remains as to the proper interpretation of Section 706. And that, in and of itself, is likely enough to defeat any claim to field preemption, for even if Section 706 *does* provide independent authority for the Commission to promote broadband deployment beyond the powers granted elsewhere in the Communications Act, the statutory language and legislative history of the provision cannot reasonably support the inference that Congress left no room for states to supplement Section 706 with their own regulations designed to encourage broadband deployment.²⁴ Indeed, as there are at least two different plausible readings of Section 706 — as evidenced by the FCC itself having interpreted it in more than one way — and because Section 706 contains no express preemption provision, a court is duty bound “to accept the reading that disfavors pre-emption.”²⁵ Thus, Section 706 surely cannot provide sufficient legal authority to support a claim of field preemption here, and any preemptive effect it may have would need to be based on the theory of conflict preemption.

B. Whatever Authority Section 706 May Grant, the State Laws in Question Can Be Enforced Concurrently, and Do Not Clearly Frustrate its Purpose, So There Can Be No Conflict Preemption Either

Even if it were conceded that Section 706 is an independent grant of authority for the Commission, that still is not enough to justify preemption of the state laws in question here, because those state laws do not directly conflict with Section 706, nor do they clearly frustrate the purpose thereof. Section 706 directs the FCC to use its powers to promote reasonable and timely broadband deployment (technically, “advanced telecommunications capability”), without directly specifying whether such deployment need be private, public, or perhaps both.²⁶ If the laws in question flatly prohibited municipalities from deploying broadband networks to serve their citizenry, then the case for conflict preemption would be far stronger: laws prohibiting broadband deployment of one type would seem, at least at first blush, to

²³ If Section 706 is relied upon as the basis for preemption of state laws in this proceeding, or as the basis for the proposed Open Internet rules, perhaps the D.C. Circuit sitting en banc, another circuit court, and/or the Supreme Court may be willing to devote adequate time to this issue in response to a legal challenge.

²⁴ *Cf. Gade v. Nat’l Solid Wastes Mgmt. Assn.*, 505 U.S. 88 (1992) (holding that state laws regarding licensing of particular professions within the state were preempted, because the federal Occupational Safety and Health Act of 1970 was intended by Congress to govern the entire field, without leaving any room for supplemental state regulations).

²⁵ *Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 449 (2005) (“[B]ecause the States are independent sovereigns in our federal system, we have long presumed that Congress does not cavalierly pre-empt state-law causes of action.” (quoting *Medtronic, Inc. v. Lohr*, 518 U. S. 470, 485 (1996))).

²⁶ See 47 U.S.C. § 1302.

directly contradict the statutory goal of Section 706 (although the Commission would still have to weigh the *net* effects of even such a prohibition, as discussed below²⁷). However, neither the laws and regulations in Tennessee nor the laws and regulations in North Carolina can fairly be read to prohibit municipalities from deploying broadband networks.

The laws and regulations at issue impose certain restrictions and conditions on the build-out of government-owned broadband networks, but they do not – contrary to popular assumption created by media coverage of this issue – actually *prohibit* such build-out, and they even provide certain immunities and exceptions for networks that have already begun to be built out to ensure that such networks are not crushed by undue regulatory burdens.²⁸ If these laws and regulations were designed only to restrict and frustrate the deployment of government-owned broadband networks, and served no other purposes, then, again, the case for conflict preemption would be much stronger. However, such is not the case here, as the laws and regulations in Tennessee and North Carolina quite clearly were designed with certain other purposes and goals in mind: notably, providing procedural safeguards to ensure that municipal governments obtain democratic consent for any broadband plans, and ensuring that the natural advantages such networks might have over private competitors do not unduly skew market forces in their favor.

As an initial matter, it is worth noting that economists and other experts in the field have yet to come to a consensus on the efficacy and value of government-owned broadband networks. Some argue that government-owned broadband networks present a valuable alternative to private deployment for unserved and underserved communities, while others argue that the deployment of government-owned networks inhibits the deployment of private networks — since taxpayer-funded networks have a number of inherent economic advantages over privately-funded networks — and therefore deploying government-owned networks may, in the long run and in the aggregate, actually result in lesser broadband deployment than if it were left entirely up to private companies.²⁹ While such disagreement persists, it is sensible

²⁷ See Section VI.A, *infra*.

²⁸ See EPB Petition, at 15-16 (admitting that Tennessee municipal electric systems are also authorized to also provide broadband services, but only within their service areas, and asking the FCC to preempt that requirement); Wilson Petition, at 26-27 (describing the provision in H.B.129 that exempts Wilson's broadband network from complying with the bill's "onerous requirements," but asking the FCC to preempt those requirements to allow Wilson to expand its broadband network into other counties without having to comply with H.B.129's regulations, which are ostensibly designed to level the playing field between public and private broadband networks).

²⁹ See, e.g., Joan Engebretson, *Municipal Broadband Opposition Laws: Pros and Cons — and Legality*, TELECOMPETITOR (May 9, 2014), available at <http://www.telecompetitor.com/municipal-broadband-opposition-laws-pros-and-cons-and-legality/>.

that individual states have been allowed to experiment – as “laboratories of democracy” – with different types of laws and regulations designed to promote broadband deployment, and over time, as the results of these different policies become more evident, a uniform Federal broadband deployment policy may be adopted. But in the meantime, such policy experimentation is beneficial, and should be commended by the FCC – not stifled.

Principles of federalism apply not only to the relationship between the Federal and state governments, but also apply within states, dictating the relationship between state and local governments. In that realm, state laws will always be deemed to preempt local laws, because cities and municipalities are purely creations of the state, giving states plenary power over their local subdivisions.³⁰ In the context of broadband deployment, states are also allowed to experiment with different policies and regulations at the local level, with the goal of eventually forming consensus before a state-wide policy is put into place. Tennessee and North Carolina, then, clearly have a least one legitimate policy goal in mind by placing certain restrictions on the EPB and Wilson government-owned broadband networks: Keeping the local policy experiments constrained, and limited in geographic scope, at least until consensus can be reached about the efficacy and value of such programs, lest the programs expand throughout the entire state and effectively supplant any private broadband deployment that might otherwise take place. It may well be that local governments are best able to deploy, operate, and upgrade broadband networks to serve the Internet access needs of their citizens, but such a conclusion is hardly obvious (based on the available body of evidence), so continued experimentation at the local and state level should be encouraged until a consensus on the point can be reached.

Thus, it seems that any claim for conflict preemption here is unlikely to succeed in court. The laws in Tennessee and North Carolina do not directly conflict with Section 706 — because one can concurrently “encourage” the “reasonable and timely” deployment of broadband while still imposing certain conditions as to where and how such deployment will take place — and, at least as of yet, it is not evident that the conditions imposed on the public networks in Chattanooga and Wilson clearly frustrate the purpose of Section 706, because the jury is still out on whether publicly funded government-owned networks will truly produce greater

³⁰ See, e.g., *Merriam v. Moody's Ex'r*, 25 Iowa 163, 170 (1868) (“In determining the question now made, it must be taken for settled law, that a municipal corporation possesses and can exercise the following powers and no others: First, those granted in express words; second, those necessarily implied or necessarily incident to the powers expressly granted; third, those absolutely essential to the declared objects and purposes of the corporation — not simply convenient, but indispensable; fourth, any fair doubt as to the existence of a power is resolved by the courts against the corporation — against the existence of the power.”).

broadband deployment than would privately funded networks, both in the aggregate and in the long-term. As such, conflict preemption would be an inappropriate step for the Commission to take at this time, and, on the current body of evidence, such a theory would likely be legally infirm anyhow.

III. The FCC's Power to Preempt Would Be a Double-Edged Sword

In its relentless drive to regulate net neutrality without Congressional authorization, the Commission has, by reinterpreting Section 706 as a sweeping grant of authority unto itself, opened a veritable Pandora's Box of regulation untethered to any clear basis in law and unconstrained by democratic process. Those urging the FCC to preempt restrictions on broadband would thus do well to heed the warning given by Matthew Berry, former FCC General Counsel and current Chief of Staff to Commissioner Ajit Pai: The power to preempt state laws restricting municipal broadband would also, presumably, include the power to restrict or perhaps even prohibit government-owned networks.³¹ As Berry recently said in a speech to the National Conference of State Legislators, a bipartisan forum of state lawmakers that has opposed preemption under Section 706:

If the history of American politics teaches us anything, it is that one political party will not remain in power for perpetuity. At some point, to quote Sam Cooke, "a change is gonna come." And that change could come a little more than two years from now. So those who are potential supporters of the current FCC interpreting Section 706 to give the Commission the authority to preempt state laws about municipal broadband should think long and hard about what a future FCC might do with that power.

For example, while today's FCC might reach the conclusion that state laws restricting municipal broadband projects are barriers to infrastructure investment and thus should be preempted under Section 706, that's not the only way to look at the issue. Most economists believe that municipal broadband projects deter private-sector infrastructure investment.... It's not hard, then, to imagine a future FCC concluding that taxpayer-funded, municipal broadband projects themselves are barriers to infrastructure investment. So if the current FCC were successful in preempting state and local laws under Section 706, what

³¹ Matthew Berry, Chief of Staff to FCC Comm'r Ajit Pai, Remarks at Nat'l Conference of State Legislatures' 2014 Legislative Summit (Aug. 20, 2014), available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0820/DOC-328916A1.pdf.

would stop a future FCC from using Section 706 to forbid states and localities from constructing any future broadband projects? Nothing that I can see.³²

In short, if used to preempt state laws, Section 706 would become a political football, with its use potentially shifting 180 degrees between administrations. More generally, Section 706 could be used to justify a wide range of new FCC regulations. Thus, the question facing the Commission is not whether government-run broadband is a good idea – though we emphatically believe it is not. The question is whether three unelected bureaucrats at the FCC may intrude upon the sovereignty of the states to bypass the judgments of democratically elected state legislators regarding what cities, counties and towns – which are all creatures of the states, just as the FCC is a creature of Congress – may do that the Commission might claim relates to broadband deployment. If the FCC has the power to preempt state restrictions on municipal-run networks, it also has the power to *ban* such networks. Indeed, it is unclear where the Commission’s powers would end.

And the process with which the Commission has undertaken this proceeding makes this outcome even more likely. The Commission has rushed this proceeding with astonishing speed. The Commission often takes months, or even years, to respond to petitions for declaratory ruling or rulemakings. Acting, as the Chairman seems intent to do,³³ with inadequate information and on a remarkably hurried schedule that, one can only assume, reflects political incentives rather than the Commission’s mandate to serve the public interest, ensures that politics will predominate in the future, as well.

Rather than rushing towards preemption here, the Commission should do what Bill Clinton ordered Executive branch regulatory agencies to do back in his 1999 Executive Order on Federalism:

National action limiting the policymaking discretion of the States shall be taken only where there is constitutional and statutory authority for the action and the national activity is appropriate in light of the presence of a problem of national significance. **Where there are significant uncertainties as to whether national action is authorized or appropriate, agencies shall consult with appropriate**

³² *Id.*

³³ Tom Wheeler, *Removing Barriers to Competitive Community Broadband*, FCC (June 10, 2014), available at <http://www.fcc.gov/blog/removing-barriers-competitive-community-broadband>.

State and local officials to determine whether Federal objectives can be attained by other means.³⁴

President Obama recently reaffirmed the wisdom of Executive Order 13,132.³⁵ Minimal respect for optimal agency process requires the FCC, in acting on these petitions, to engage in rigorous fact-finding and to exercise extreme caution before intervening. At minimum, the FCC can and should convene workshops, commission studies on the competitive effects of government-owned broadband, collect data from across the nation to study the broader effects (beyond the municipalities at issue) of government-owned networks, and the like. Failure to do so simply enshrines political considerations as the touchstone for the present and future interpretation of the nearly limitless authority the FCC claims under Section 706.

IV. Government-Run Broadband is Just “Groping in the Dark”

Markets are not perfect. Sometimes they do not serve consumers as well as we might like, especially in industries such as broadband, where service requires massive capital investments. But even worse than ignoring the possibility of market failure would be ignoring the reality of *government* failure, which tends to be more frequent, more intense and more persistent over time, since government failure cannot generally be corrected by market forces. The problem is not simply that government may not serve consumers well, but that it has a unique power to oppress them. As George Washington is said to have remarked, “Government is not reason, it is not eloquence, it is force; like fire, a troublesome servant and a fearful master. Never for a moment should it be left to irresponsible action.”³⁶

For all the complaints about “bottleneck” power that broadband companies might theoretically exercise, governments at all levels regularly exercise the power to censor speech, conduct surveillance on citizens, access stored communications without warrants, and otherwise invade their privacy. Both the possibility of government failure and the unique dangers posed by government need to be taken into account before rushing to the conclusion that government-owned broadband networks should displace private networks

³⁴ Exec. Order No. 13,132, 64 Fed. Reg. 153 (Aug. 4, 1999), available at <http://www.gpo.gov/fdsys/pkg/FR-1999-08-10/pdf/99-20729.pdf> (emphasis added).

³⁵ Memorandum for the Heads of Exec. Dep'ts & Agencies, Subject: Preemption (May 20, 2009), available at http://www.whitehouse.gov/the_press_office/Presidential-Memorandum-Regarding-Preemption.

³⁶ The quote is probably apocryphal, but its thrust remains. See Eugene Volokh, *Government Is Not Reason, It Is Not Eloquence — It Is Force*, Volokh Conspiracy, Apr. 14, 2010, <http://www.volokh.com/2010/04/14/government-is-not-reason-it-is-not-eloquence-it-is-force/>.

A. Giving Government Greater Control over Broadband Is a Dangerous Idea

We're all better off with a wall of separation between Net and State. In light of world experience, it is clear that many governments have abused their regulatory power for surveillance, control of information and censorship.

Following revelations by Edward Snowden about the reach of the NSA, the desperate need for ECPA reform, and other routine privacy revelations often made by government entities, do we really want them in direct control of Internet provision? EPB, in fact, brags in its petition about the benefits of surveillance:

Additionally, advanced broadband infrastructure would promote security and public safety. Such services as remote video monitoring of home, children, pets, and remote video monitoring of schools and businesses will enable greater public security. At a broader level, biometric screening at designated entry points/sensitive facilities, and remote surveillance of borders, ports, and airports will promote national security.³⁷

And the City of Wilson notes that “[t]he network has enhanced the capabilities of public safety agencies by facilitating the extensive deployment and interconnection of surveillance cameras.”³⁸

On top of this, government provision of Internet service raises real questions about what type of content will and should be available on public networks. For instance, should municipal broadband services allow access to pornography? In 2008, FCC Chairman Kevin Martin proposed a regulation to a spectrum auction that would have required its winner to build a wireless ISP that was smut-free.³⁹ Similarly, there have been proposed amendments at the state level which would require municipal broadband services to restrict access to pornography. Censorship like this normally would not survive First Amendment scrutiny, but government provision of the service may place it under a lower tier of review.

³⁷ Bento J. Lobo, et al. *The Impact of Broadband in Hamilton County, TN*, Exhibit 7 to EPB Petition Pursuant to Section 706 of the Telecommunications Act of 1996, 31 (Mar. 20, 2006), available at <https://www.epb.net/downloads/legal/EPB-FCCPetition-Exhibits.pdf#page=52>.

³⁸ Wilson Petition at 21.

³⁹ See Berin Szoka, *M2Z Reborn: Censored, but Free, Broadband is Now Kevin Martin's Top Priority*, TECH. LIBERATION FRONT (Dec. 1, 2008), <http://techliberation.com/2008/12/01/m2z-reborn-censored-but-free-broadband-is-now-kevin-martins-top-priority/>.

Meanwhile, as the EPB Petition demonstrates, at least some municipal broadband networks were constructed to facilitate the other functions of municipal utility systems. “By the mid-90’s, EPB recognized the need to enhance its electric system by the addition of [a] high-capacity, dedicated communications network.”⁴⁰ Government-owned broadband networks may well be managed to optimize these services to the possible detriment of consumer services. Moreover, when and if congestion or other constraints arise, presumably government services will be prioritized, again to the detriment of consumer services.

B. Government-Owned Networks Have a Poor Track Record of Serving Consumers

In the free market system, prices are created by allowing individuals to freely exchange goods and services. These prices are relied upon by entrepreneurs in order to make decisions about what kind of goods they will produce for consumers. But prices are also relied upon to help make decisions about what to use to produce the goods and services consumers want. The profit-and-loss mechanism helps businesses determine the best use of resources in serving the needs of consumers. Without the profit-and-loss mechanism, businesses, even if they could guess that a particular product or service is desired by consumers, would not know how to price it or how to produce it cost-effectively.⁴¹

Government-run enterprises do not face the same profit-and-loss mechanism. Because governments can use means not available to private enterprises, like taxation, they do not have to rely upon revenue from selling their goods and services on the market. At best, governments can mimic their competitors in the private marketplace in an attempt to “act like a business”: *i.e.*, they can offer similar products and services at a similar price and try to use similar business practices to bring them about cost-effectively. But without the profit-and-loss mechanism at the end, it is impossible to tell if they have actually increased consumer welfare or wasted taxpayer money.⁴²

Building a broadband network is not a simple one-time investment, but a dynamic, ongoing enterprise. A government-run broadband network must make many important decisions about what speeds to provide, whether to offer bundled services, what prices to offer these services at, and how much to invest in fiber, cable, DSL, or wireless infrastructure. It must also determine how to fund these projects: through subscriptions, bonds, taxpayer dollars, grants

⁴⁰ EPB Petition at 19.

⁴¹ See generally LUDWIG VON MISES, BUREAUCRACY (1944).

⁴² See Ludwig von Mises, *Economic Calculation in the Socialist Commonwealth* 26, in COLLECTIVIST ECONOMIC PLANNING (F.A. Hayek, ed., 1935) (“every economic change becomes an undertaking whose success can be neither appraised in advance nor later retrospectively determined. ***There is only groping in the dark.***”) (emphasis added).

from the federal government, cross-subsidization from utility revenue, etc. Without an accounting of profit and loss at the end, government actors cannot know the best way to produce the offerings that consumers value.

Of course, private companies are not perfect, but the free market rewards companies for providing things that consumers want in a cost-effective manner – and investing in future offerings according to expected future demand. Private firms have an obligation to maximize value for their shareholders and therefore must make financially sustainable investments driven by actual consumer demand. Public entities, on the other hand, do not have these incentives, and, as a result, they can (and sometimes do) engage in speculative projects at tremendous cost to taxpayers.⁴³ Unfortunately, the petitions at issue here are both premised on the idea that government-financed projects will outpace market-driven investment.

The evidence from even the Petitioners' own experiences confirms that local governments are not well-positioned to run municipal broadband networks. Both Greenlight in Wilson, NC and the EPB in Chattanooga, TN are held up as successful examples of government-run broadband projects. A closer look, though, reveals the very problems pointed out above as inherent in government-run enterprises.

1. Greenlight – Wilson, NC

The Wilson, NC network grew out of a previous attempt by the city to build a cable company in the late 1980s. In 1989, the city set aside \$4 million to study the viability of creating or acquiring a cable television company. In 2001, Wilson tried and failed to purchase a local cable provider's network. A later Wilson project was to partner with incumbent ISPs to build a fiber-to-the-home (FTTH) network, but ISPs did not want to assume the risk with the lack of demand. In 2006, Wilson City Council voted to authorize the issuance of \$28 million in debt to build the FTTH network, which went citywide in 2009. By January 2012, the network succeeded in passing over 20,000 households and the network began to expand into the surrounding county.⁴⁴

Wilson's "investment" has been funded primarily by borrowing. In 2008, the City Council issued over \$33 million of certificates of participation (akin to revenue bonds), which are secured by a

⁴³ See *infra* notes 102 to 104 and accompanying text.

⁴⁴ CHARLES M. DAVIDSON & MICHAEL J. SANTORELLI, UNDERSTANDING THE DEBATE OVER GOVERNMENT-OWNED BROADBAND NETWORKS: CONTEXT, LESSONS LEARNED, AND A WAY FORWARD FOR POLICY MAKERS 88 (June 2014), available at <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>.

lease on the network's equipment.⁴⁵ Wilson borrowed an additional \$4.75 million from Wells Fargo in 2010.⁴⁶ While touted by supporters as a benign alternative to taxation, the truth is that bonds and loans are in reality a promise of future taxation if the project does not receive an adequate return on investment.⁴⁷ In other words, the reliance on borrowing by Wilson does not mean taxpayers will not still ultimately be on the hook for the fiber network. Further, as noted below, Wilson has had to rely on cross-subsidization from government-run utilities to cover operating expenses.

While fiber has been called "future-proof"⁴⁸ by some, there are no guarantees that this type of technology will not be obsolete by the time the 25-year bonds mature. And even if today's fiber optic cables remain the best medium for carrying data, there is far more to a "fiber" network than just the fiber itself; the network involves a considerable amount of routers and other hardware. Wilson is gambling that innovation will not overtake fiber – and we can only hope this is not like investing in a local train station before the dawn of the interstate highway system. The history of creative destruction suggests that no technology is safe from the future.⁴⁹

This is particularly true where Moore's Law is involved: if the cost of computing power falls by half every eighteen months,⁵⁰ then investing in more computing equipment today than is really needed may be enormously, and unnecessarily, costly, raising the entire cost of the system. The prospect of rapidly falling equipment costs helps to explain why, for example, Verizon has only gradually invested in the equipment needed to deliver the gigabit speeds of which its fiber network has been theoretically capable since the day fiber was put into the ground. Moore's Law also helps to explain why AT&T has chosen an even more gradual deployment path, laying fiber to the node and exploring a variety of technologies for upgrading the DSL connections between the node and the user, AT&T is now in the midst of upgrading its network to offer 45-70 mbps service throughout much of its footprint. While this service will not be as fast as

⁴⁵ *Id.* at 89.

⁴⁶ *Id.*

⁴⁷ This, in fact, was explicitly promised on the certificates of participation: "The COP agreement states that if revenue derived from the network is not enough to make payments, the city will use taxpayer money from the city's general fund to cover those obligations." *Wilson Certificates of Participation Series 2008*, at 15.

⁴⁸ Susan Crawford, *Route Around Cable Behemoths*, THE BOSTON GLOBE (Feb. 21, 2014), <http://www.bostonglobe.com/opinion/2014/02/21/route-around-cable-behemoths/33mk4oWbFXh6G8WDEFUR6K/story.html>.

⁴⁹ See, e.g., JOSEPH SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY (1942).

⁵⁰ See, e.g., Michael Kanellos, *Moore's Law to Roll on for Another Decade*, CNET (Feb. 10, 2003), available at <http://news.cnet.com/2100-1001-984051.html>.

Verizon's FiOS service, it will be faster than the vast majority of customers currently demand. And this is precisely the point: it is impossible to say with any certainty which deployment path is better. These companies, like all broadband companies, are experimenting with the right mix of technologies and investment to deliver the mix of products demanded by consumers in an uncertain future.

After building out the network, Wilson needed to determine at what prices to offer its services. Political pressure to offer a lower than market price needs to be balanced with the need to recoup the initial investment. Further, setting the prices too low could actually impact the viability of entrance by competitors or drive out competition already present. The end result could be that Greenlight becomes a monopoly in the area, which may undercut the original goal of encouraging competition with private ISPs.⁵¹

On the other hand, setting the price too high could mean that Greenlight does not effectively compete with competitors. So far, Greenlight's adoption rates have been limited, as it has somewhere between 6,000 and 7,000 subscribers, which represents only about one-third of the market.⁵²

So far, Wilson has struggled to find the right price, and this has resulted in insufficient revenues to cover operating expenses:

- Greenlight lost a combined \$2.5 million in 2009 and 2010 and required an additional \$11 million in cross-subsidies from electric and gas funds. Those resulted in 50 percent higher electricity rates and 30 percent higher natural gas rates for similar services provided by local utilities Progress Energy and PSNC Energy.⁵³
- In 2012, the network had an operating loss of \$220,956.⁵⁴

On top of this, debt servicing and asset depreciation could lead to serious long-term sustainability issues.⁵⁵

⁵¹ See generally JOHN R. LOTT, ARE PREDATORY COMMITMENTS CREDIBLE?: WHO SHOULD THE COURTS BELIEVE? (1999).

⁵² See Wilson Petition at 97.

⁵³ Anthony McConnell, *NC Legislators Seek Level Field for Muni Wi-Fi*, HEARTLAND (Mar. 25, 2011), <http://news.heartland.org/newspaper-article/2011/03/25/nc-legislators-seek-level-field-muni-wi-fi>.

⁵⁴ DAVIDSON & SANTORELLI, *supra* note 44, at 90.

⁵⁵ *Id.* at 89-90.

2. Electric Power Board – Chattanooga, TN

The Electric Power Board in Chattanooga, TN shows similar difficulties in determining what speeds to offer, how to produce it, and what prices to set. The fiber network arose out of the electric company's decision to build a communications network in the late 1990s. While initially underutilized, easing of state laws on competition with telecommunications providers allowed EPB to expand into providing broadband services.⁵⁶

The \$390 million EPB fiber network has been financed by a combination of loans from the electrical utility subdivision, federal stimulus money, and borrowing. EPB Electric helped EPB Fiber get started with a \$50 million loan. In 2009, EPB received \$111.5 million from the federal stimulus funding from the U.S. Department of Energy for the smart grid system. EPB also issued \$229 million of local revenue bonds, of which \$162 was used to fund the fiber build-out.⁵⁷ Each of these sources is either directly or indirectly from the taxpayer: either through subsidies ultimately out of the federal purse, through loans from the electric division which has a monopoly over provision of electric, or from bonds which must be paid back, even if at taxpayer expense. None represent real "investment" from the private sector.

Much like Greenlight, EPB's service is based around its fiber offering, which they are betting will last as long as the 25-year bonds funding it. Also like Greenlight, the EPB has had a real problem in determining how to price its services. For the highest speed service, symmetrical gigabit speed, EPB charged \$350 a month, with little adoption.⁵⁸ As of August 2012, the "EPB estimate[d] that nine residents and two businesses pay the hefty \$350-per-month charge. Most use a 30-megabit-per-second (mbps) connection, which is still far faster than the American average of 6.7mps."⁵⁹ In order to stimulate more adoption the price was slashed to just \$70 a month in 2014.⁶⁰ In other words, EPB's pricing swung from one side of the pendulum to the other, but it is still unclear what the true market price should be. As of 2010, EPB's 4-

⁵⁶ *Id.* at 51.

⁵⁷ *See id.* at 51-52.

⁵⁸ *See* Steve Lohr, *Fastest Net Service in U.S. Coming to Chattanooga*, NEW YORK TIMES (Sept. 12, 2010), <http://www.nytimes.com/2010/09/13/technology/13broadband.html> ("We don't know how to price a gig," said Harold DePriest, chief executive of EPB. "We're experimenting. We'll learn.")

⁵⁹ *The need for speed: What superfast internet connections can do for a city*, THE ECONOMIST (Aug. 11, 2012), available at <http://www.economist.com/node/21560288?frsc=dg%7Ca>.

⁶⁰ *We Are Gig City*, EPB (last accessed Aug. 29, 2014), <https://epbf.com/gigsupport/>.

year cumulative deficit from its “investment” in fiber and communications services was \$41,302,000.⁶¹

These pricing decisions have secondary effects. According to competitors like David Snyder, who operates an ISP in Dayton, 35 miles north of Chattanooga, EPB’s presence offers little incentive to compete in that city. He argues that EPB may eventually have a monopoly because fewer and fewer private companies wish to compete against it:

A lot of people (in Chattanooga) believe EPB is a private competitor who is giving Comcast and AT&T what they deserve for their poor customer service. But now there are tremendous advances in telecommunications for local competition and a lot of investment going on by private companies. AT&T competes with Comcast for television delivery services, for instance. It’s a major disincentive when you have a government-subsidized competitor there. There is robust competition in this industry, and it is getting more robust by the day.⁶²

To be fair, EPB Fiber has received enough revenue from subscribers to cover operating expenses in recent years. Its revenues were \$80 million in 2013, with expenses of \$59,877,000.⁶³ On the other hand, EPB Fiber’s total liabilities are \$78,055,000, and the utility’s total liabilities are \$514,808,000, so it’s not as if the utility is operating in the black overall.⁶⁴ Additionally, EPB’s bond rating was downgraded as a result of the credit risk created by its utility cross-funding scheme.⁶⁵

3. Other Examples

If this isn’t enough, the evidence from other attempts at municipal broadband networks reveals overwhelming failure:

⁶¹ Ronald J. Rizzuto, *Financial Performance of Tennessee’s Municipal Cable and Internet Overbuilds in 2009* 15 (Working Paper, Feb. 25, 2010), available at http://media.timesfreepress.com/docs/2010/05/Rizzuto_report_on_Tennessee_telecoms.pdf.

⁶² Christopher Butler, *Chattanooga residents get Internet, courtesy of taxpayers*, Tennessee Watchdog (Dec. 11, 2011), available at <http://watchdog.org/1019/tn-chattanooga-residents-get-internet-courtesy-of-taxpayers/>.

⁶³ DAVIDSON & SANTORELLI, *supra* note 44, at 53.

⁶⁴ *Id.*

⁶⁵ *Id.*

- The city of Groton, Connecticut borrowed \$34.5 million to build a broadband network, ran the network at a \$2.5 million annual loss, sold the network for \$550,000, and left taxpayers with the bill.⁶⁶
- The “financially troubled” (and ironically named) UTOPIA project has saddled Utah cities with debt, leading at least one such city to propose property tax increases in order to meet its network-related debt obligations.⁶⁷ Tellingly, this city’s leadership has fought for the right to omit any mention of UTOPIA in its tax increase referendum because, in the words of one resident, it is “embarrassed about the financial fiasco that UTOPIA has caused.”⁶⁸
- LUS Fiber in Lafayette, Louisiana faced revenue problems for years due to insufficient uptake from consumers, having to readjust projections and repayment plans several times.⁶⁹
- The fiber network in Provo, Utah, known as iProvo failed so badly⁷⁰ that it was first sold to Broadwave Networks and then essentially given away to Google for \$1. In the meantime, it cost taxpayers millions of dollars in an attempt to pay off its debt.⁷¹
- Australia’s National Broadband Network has fallen victim to mismanagement, political turmoil, and massive cost overruns. The project began as a government plan to invest \$43 billion to build fiber-to-the-premises facilities to 90% of Australian homes, schools, and workplaces,⁷² but it eventually became clear that costs would run tens of billions of

⁶⁶ See Deborah Straszheim, *How a Promising Idea Went Terribly Wrong in Groton*, GROTON PATCH (Jan. 6, 2013), available at <http://groton.patch.com/groups/politics-and-elections/p/how-a-promising-idea-went-horribly-wrong-in-groton>; Greg Smith, *Groton’s Deal to Shed TVC Finalized as New Owners Take the Reins*, THE DAY (Feb. 1, 2013), available at <http://www.theday.com/article/20130201/NWS01/130209982/0/Search>.

⁶⁷ See Steven Oberbeck, *Orem Tax Hike Ballot to Fund UTOPIA Won’t Mention the Troubled Network*, THE SALT LAKE TRIBUNE (Sept. 13, 2013), available at <http://www.sltrib.com/sltrib/money/56862022-79/utopia-ballot-orem-court.html.csp>.

⁶⁸ See *id.*

⁶⁹ Nathan Stubbs, *Inside LUS Fiber’s new marketing push and why it’s crucial to the business’ long-term success*, IND (Nov. 24, 2010), <http://www.theind.com/cover-story/7339-market-share>.

⁷⁰ Steve Titch, *Spinning its Wheels: An Analysis of Lessons Learned from iProvo’s First 18 Months of Municipal Broadband*, REASON FOUNDATION (Dec. 2006), <http://reason.org/files/33224c9b01e12f3b969f4257037c057e.pdf>; Steve Titch, *Think Tank: iProvo’s Losses at \$8 Million and Counting*, REASON FOUNDATION (Apr. 16, 2008), http://www.reason.org/news/iprovo_municipal_wifi_broadband_update_041608.shtml.

⁷¹ Steve Gehrke, *iProvo gets OK for tax surplus: Council votes 5-1 to bail out fiber-optic system*, THE SALT LAKE TRIBUNE (Jun. 6, 2007), available at http://www.sltrib.com/SEARCH/ci_6080894.

⁷² See Joint Media Release by Steven Conroy, Minister for Broadband, Communications and the Digital Economy, *et al.*, “New National Broadband Network” (Apr. 7, 2009), available at http://www.minister.dbcde.gov.au/conroy/media/media_releases/2009/022.

dollars over budget.⁷³ New leaders proposing to scale the project back to a fiber-to-the-node architecture in order to reduce costs were recently elected,⁷⁴ and the future of Australia's National Broadband Network now hangs in the political balance.⁷⁵

- In Finland, a fiber project is struggling. Sparsely populated areas of the north are especially hard to wire, leading to much higher total costs for the initiative. In total, the price tag to bring 100 Mbps of service to within two kilometers of all of Finland will be up to a staggering €53,000 (\$68,000) per household.⁷⁶ For their own part, regional authorities have been burdened with the excessive bureaucracy, and many of the local projects slated for development have had to wait because the actual bill has been more than projected.

V. This Proceeding is a Polarizing Distraction from Actually Promoting Broadband Deployment

What Petitioners claim is that only cities can or will provide *gigabit* service in some areas—but they use Section 706 and other indications of Congress' intent to incentivize the deployment of *broadband* to support the claimed need for gigabit service. This is a sleight of hand. There is nothing in Section 706 to suggest that resources should be diverted from extending broadband deployment to communities where it doesn't exist at all to support offering faster service to communities that already have it.

And there is no evidence to support the need for gigabit service, even if it weren't contrary to Congressional intent.

The same 1960s technocratic mindset that brought needless subsidies to the now-abandoned Concorde underlies today's calls for public-financed gigabit networks.⁷⁷ Supersonic air travel technology hasn't progressed since 1969 because *even now* — let alone in 1969 — there is

⁷³ See Annabel Hepworth, *NBN Costs Set to Soar Past \$60bn*, THE AUSTRALIAN (July 24, 2013), available at <http://www.theaustralian.com.au/business/in-depth/nbn-costs-set-to-soar-past-60bn/story-e6fngaif-1226684023561>.

⁷⁴ See "The Coalition's Plan for Fast Broadband and an Affordable NBN" (Apr. 2013), available at <http://paweb-static.s3.amazonaws.com/Policies/NBN.pdf>.

⁷⁵ See Annabel Hepworth, *Coalition to Delay NBN Laws Until 2014*, THE AUSTRALIAN (Sept. 13, 2013), available at <http://www.theaustralian.com.au/national-affairs/election-2013/coalition-to-delay-nbn-laws-until-2014/story-fngqr68y-1226718041481>.

⁷⁶ Cyrus Farivar, *Finland: Plan for universal 100Mbps service by 2015 on track*, ARSTECHNICA (Oct. 31, 2012), <http://arstechnica.com/business/2012/10/finland-plan-for-universal-100mbps-service-by-2015-on-track/>.

⁷⁷ See, e.g., Robert Kenny and Charles Kenny, *Superfast: Is It Really Worth a Subsidy?* (Communications Chambers, November 2010), available at http://charleskenny.blogs.com/files/overselling_fibre_1127.pdf.

insufficient demand to support it. Both rest on the same core fallacy: The technologies (in both cases focused solely on speed) behind today's transportation/communications networks are inadequate to support the next generation of uses — and government subsidies are required to get us from "here" to "there."

As with the Concorde, government subsidy of, and investment in, fiber networks seems misplaced:

[F]iber to the home may be no more worth[y] of subsidy than Concorde. Flashy and exciting, to be sure – but ultimately not worth the price.⁷⁸

Air transportation *was* transformed during the period Concorde operated (1976 to 2003), but that transformation had nothing at all to do with the lavish public subsidies for Concorde and everything to do with smarter public policy — namely, removing regulatory barriers that had dictated a specific (inefficient) market structure and protected incumbent operators from competition. The price of air transportation has fallen by almost 50% since deregulation.⁷⁹ People got what they wanted, and what they wanted was inexpensive air travel, not supersonic speed. One of the heroes of this transformation, Ryanair CEO Michael O'Leary, had this to say about air travel and the mindset that brought us the Concorde:

The problem with aviation is that for fifty years it's been populated by people who think it's this wondrous sexual experience; that it's like James Bond and wonderful and we'll all be flying first class when really it's just a bloody bus with wings.... Most people just want to get from A to B. You don't want to pay £500 for a flight.⁸⁰

Most people want to use the Internet to surf the Web, send emails and watch videos. And whether they have to pay for it directly, through taxes or through forestalled investment elsewhere, there's little evidence that they want or need the broadband equivalent of supersonic transport to do it. Perhaps most important, there is no evidence of market failure in need of correction — no evidence that today's ISPs and today's infrastructure are failing

⁷⁸ *Id.*

⁷⁹ See Mark J. Perry, *Even with baggage fees, the 'miracle of flight' remains a real bargain; average 2011 airfare was 40% below 1980 average*, AEI (Aug. 29, 2014), <http://www.aei-ideas.org/2012/10/even-with-baggage-fees-the-miracle-of-flight-remains-a-real-bargain-average-2011-airfare-was-40-below-1980-level/>.

⁸⁰ Jonathan Glancey, *Concorde: A 20th Century Design Classic*, BBC (May 30, 2013), <http://www.bbc.com/culture/story/20130529-concorde-on-a-different-plane>.

appropriately to offer the speed and other characteristics that users demand, nor that they will fail to do so in the future.

Before we use taxpayer funds to build the Concorde of the Internet, we should be sure there is a sound basis for doing so. ISPs are already supplying broadband well in excess of current and anticipated demand (as defined by speed, capacity, latency, etc.) and ISPs seem fully capable of meeting all anticipated demand. Moreover, this is true based on current and future investment by ISPs (more than \$50 billion worth in 2012 alone according to the Progressive Policy Institute⁸¹) — investment that has been sufficient to ensure that there has never yet been a supply bottleneck in broadband.

Rather than support Petitioners' assertions that the agency should subsidize a technology picked because of an arbitrary, top-down decision that people should have a certain speed even if they don't yet want it, the FCC should consider ways to encourage state and local governments to reduce regulatory barriers to expanding private provision of broadband at useful speeds.

The FCC should heed the wisdom of Australia's newly minted Communications Minister, who explained his government's decision to abandon plans for a national fiber-to-the-home network in favor of subsidizing slower, but far less expensive fiber-to-the node connectivity:

The Government is thoroughly open-minded; we are not dogmatic about technology. Technology is not an ideological issue; we are completely agnostic about it. What we want to do is get the best result for taxpayers and consumers as soon as possible.⁸²

A. There's No Economic Basis for Artificially Promoting Gigabit Fiber

The Petitioners envision a world where gigabit speed is a necessity, despite the lack of demand for such speeds, or the indication that ISPs are incapable of meeting either current or future demand.

As the National Broadband Map shows, American citizens have increasingly adopted faster Internet services as they perceived the need to do so for their employment and entertainment

⁸¹ Diana G. Carew & Michael Mandel, *U.S. Investment Heroes of 2013: The Companies Betting on America's Future*, PROGRESSIVE POLICY INSTITUTE, Sept. 2013, available at http://www.progressivepolicy.org/wp-content/uploads/2013/09/2013.09-Carew-Mandel_US-Investment-Heroes-of-2013.pdf.

⁸² *Government aims for NBN cost and time savings*, AUSTRALIAN BROADCASTING CORPORATION (Sept. 24, 2013), available at <http://www.abc.net.au/7.30/content/2013/s3855656.htm>.

needs.⁸³ To put it another way, supply has closely paralleled demand — almost as if, despite governmental barriers to competition, markets worked reasonably well.

High quality video-streaming is one of the more data-intensive services driving the demand for faster networks. But, even here, the speeds currently available in the marketplace are quite ample for most consumers. Today, as little as 3.8 Mbps is all that is necessary to run Netflix's current video service, which has led one critic to ask "How much faster [Internet service] does anybody really want or need?"⁸⁴ Even Netflix Super HD, which streams at the maximum supported by most televisions and screens (1080p) requires only 5 Mbps.⁸⁵ When Reed Hastings of Netflix announced plans to launch 4K video (four times the resolution of 1080p⁸⁶) in early 2014, he claimed this would require only 15 Mbps. Perhaps allowing room for multiple connections and other Internet use, he added: "It's not too bad. If you've got a 50-megabit connection you'll be fine."⁸⁷ He also claims demand for the service will grow slowly, ensuring ISPs have "lots of time to build the infrastructure"⁸⁸

Moreover, absolute network speed isn't always the most price effective means of serving content quickly, and myriad other network improvements can do as much or more to enable the quality of service users demand. Networks continue to develop and implement network management technologies (like CDNs, for example) to reduce physical distance, optimize network routing, and compress or streamline data transmission, among other things. Firms are investing in and developing technologies — without any prodding from the government — to make their networks faster, yes, but also more reliable, secure and robust.

Petitioners' effectively seek FCC support for taxpayer subsidies for municipal broadband projects in areas that are already served by unsubsidized providers. This reaches far beyond the ostensible objective of Section 706. Adopting the proposed course of action would unfairly

⁸³ See *Broadband Statistics Report: Access to Broadband Technology by Speed*, NATIONAL BROADBAND MAP (Jul. 2013), <http://www.broadbandmap.gov/download/Technology%20by%20Speed.pdf>.

⁸⁴ David Talbot, *Not So Fast: A Google Fiber One-Gigabit Mystery*, MIT TECH. REV. (Sep. 20, 2013), <http://www.technologyreview.com/view/519466/not-so-fast-a-google-fiber-1-gigabit-mystery/>.

⁸⁵ *Internet Connection Speed Recommendations*, NETFLIX (last accessed Aug. 29, 2014), <https://help.netflix.com/en/node/306>.

⁸⁶ *What is the difference between 1080p and 4K resolution?*, SONY (last accessed Aug. 29, 2014), http://esupport.sony.com/p/support-info.pl?info_id=1348&template_id=1®ion_id=3.

⁸⁷ Jeff Baumgartner, *Netflix CEO: 15-Meg Will Be Good Enough To Stream 4K*, MULTICHANNEL NEWS (Sep. 20, 2013), <http://www.multichannel.com/distribution/netflix-ceo-15-meg-will-be-good-enough-stream-4k/145595>

⁸⁸ *Id.*

and unwisely distort the marketplace and weaken private-sector providers' incentives to continue investing in their networks.

Preemption will likely *reduce* private investment by crowding it out. Not only is it unfair to companies that have invested a combined \$1.3 trillion dollars in the last 20 years,⁸⁹ but doing so would reduce the incentives for companies to raise and invest capital in high-speed networks going forward: Why bother if the government is going to do it with taxpayer dollars?

It should similarly make no difference to a national regulator like the FCC whether municipal broadband projects induce certain firms to move from areas with slower broadband access to areas with municipal fiber. To a first approximation, such moves should be a wash from the perspective of the national public interest that the FCC is charged with upholding.

VI. Government Subsidization and Ownership of Broadband Deters Private Broadband Deployment and Competition, thus Violating Section 706

Petitioners argue that the FCC should

find that advanced telecommunications capabilities, including high-speed broadband services, are not being deployed in a reasonable and timely manner...and that the primary reason for this is a State barrier to municipal broadband deployment – Section 160A-340. The Commission should find that the purpose and effect of this provision is to thwart or unreasonably delay broadband investment and competition, and that preemption of Section 160A-340 would accelerate broadband investment and competition in these areas. The Commission should therefore take immediate action to preempt Section 160A-340 and declare it to be unenforceable.⁹⁰

For the reasons discussed below, these assertions are unsupported. On the one hand, theory and evidence do not support the claim that restrictions on municipal broadband thwart overall broadband investment and deployment, even in the municipalities at issue. But even more importantly, these claims simply ignore the effects of municipal broadband deployment on areas *outside* the municipality. Federal broadband policy seeks to ensure that broadband is deployed to under-served and costly-to-serve areas nationwide. The total effect of municipal broadband must be taken into account, not simply its short-term and local effects.

⁸⁹ See Ben Sperry, *Will the Real Broadband Heroes Please Stand Up?*, TRUTH ON THE MARKET (Sept. 9, 2013), <http://truthonthemarket.com/2013/09/19/will-the-real-broadband-heroes-please-stand-up/>.

⁹⁰ Wilson Petition at 1.

A. Overall broadband deployment is adversely affected by municipal broadband.

The FCC has, in several contexts, adopted efforts to ensure the widest possible broadband availability.

The universal service challenge of our time is to ensure that all Americans are served by networks that support high-speed Internet access—in addition to basic voice service—where they live, work, and travel. Consistent with that challenge, extending and accelerating fixed and mobile broadband deployment has been one of the Commission’s top priorities over the past few years. We have taken a series of significant steps to better enable the private sector to deploy broadband facilities to all Americans.⁹¹

Of particular interest, of course, are

costly-to-serve communities where even with our actions to lower barriers to investment nationwide, private sector economics still do not add up, and therefore the immediate prospect for stand-alone private sector action is limited.⁹²

But it is no defense of *disincentivizing* or deterring private sector broadband investment in these communities that build out has been slower there than elsewhere. By definition, these are the most difficult communities to serve. But even more important, it is no defense of substituting an arbitrary preference for government-owned broadband with the effect of further exacerbating the difficulties for private providers of building infrastructure in under-served communities.

It is ironic, then, for the Petitioners to claim support for municipal broadband in the National Broadband Plan and Section 706 based on the assertion that

it would be impossible to make the benefits of broadband connectivity available to “all Americans” on a reasonable and timely basis without the participation of municipalities, particularly in areas in which the private sector found investment unattractive.⁹³

⁹¹ USF& ICC Modernization Report & Order, *In the Matter of Connect America Fund, etc.*, WC Docket No. 10-90, ¶ 5 (Nov. 18, 2011), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-11-161A1.pdf.

⁹² *Id.*

⁹³ Wilson Petition at 13.

Whatever the effect may be on a particular locality, the effect of municipal broadband more broadly—that is, *outside* the Petitioners’ immediate areas—is not assessed in any of the Petitioners’ materials. But to the extent that government-owned broadband deters infrastructure investment by private firms overall, particularly in areas adjacent to or otherwise financially supported by income generated in the lower-cost areas at the core of Petitioners’ service areas, government-owned broadband can actually diminish the availability of broadband connectivity for “all Americans.”

In fact, the Commission has previously recognized this point. In the USF/ICC Modernization Order, the FCC went to great lengths to try to minimize the incentives for duplicative deployment, acknowledging that doing so could distort investment incentives and take away from the statutory objective of widespread broadband deployment:

[R]eforms we adopt elsewhere in the Order are designed to achieve nearly ubiquitous broadband deployment. In...areas, where the incumbent service providers will be responsible for achieving the universal service goals, we find it would not be in the public interest to provide additional support to carriers providing duplicative services. In addition, in areas where unsubsidized providers have built out service, no carrier – incumbent or competitive – will receive support, placing all providers on even footing.⁹⁴

The reality is that most municipal broadband deployment has occurred where existing networks already operate.⁹⁵ Further encouraging more municipal broadband deployment will likely further this trend in the near term.

But there is an even more insidious, and far less visible, effect on under-served communities of promoting municipal broadband deployment.

Precisely because serving costly-to-serve communities is, well, costly, the government undertakes through various initiatives like Connect America and LifeLine (among others) to subsidize such service. But private broadband providers already “self-subsidize” build-out to these communities.

In the first instance, to the extent that last- and middle-mile networks piggyback on fiber backbone, IXs and other network-wide elements, the construction and operation of these

⁹⁴ *Id.* at ¶ 509.

⁹⁵ DAVIDSON & SANTORELLI, *supra* note 44, at 50. & n. 277.

infrastructure elements can be, and is, financed by more lucrative networks in densely-populated and high-demand urban areas. The same goes for basic services that operate throughout the network, from billing services to management knowhow to customer service structures.

But even more, because economies of scale and network effects ensure that the value of adding new subscribers in under-served areas benefits not only those subscribers but the entire network, large private networks in particular have an incentive to expand infrastructure even to areas where the expected return is lower, because some of that return can be recouped by making their existing (or new) infrastructure construction in other areas more valuable.

Over and above these, broadband providers have public relations, marketing and political incentives to add under-served areas to their larger networks. And, as the Wilson Petition points out,

private networks have long been able to offer "loss leader" offers and intro pricing to get people to sign up, and the large ISPs can all use profits from one area to subsidize below-cost prices in another.⁹⁶

In short, the debate about investment incentives and broadband build out to date and evinced in the EPB and Wilson Petitions is inappropriately myopic. While the incentive effects within the immediate municipal area are important (and there is, as discussed, ample reason to think that subsidized municipal broadband crowds out private investment), the real issue is what effect municipal broadband has on incentives to invest in broadband *far beyond* the immediate area.

For these areas, of course, it may be *only* private providers that can internalize the possible negative effects: Despite Petitioners' claims to want to extend service, municipal providers are unlikely to operate networks with the economies of scale present in large private networks. As a result, not only do municipal providers potentially deter private construction, they are institutionally indifferent to the effects of their services on deployment *outside* their immediate areas. This is true, of course, even if municipal service is extended beyond its utility service area, as EPB seeks to do. And it is not economically feasible to expect EPB, for

⁹⁶ Wilson Petition, Attachment A, Section by Section Analysis of Section 160A-340, addressing § 160A-340.1 (a)(8), available at <http://www.baller.com/pdfs/wilson706petition.pdf#page=64>. While this is raised by the Petition in a challenge to the state rules that would prohibit cross-subsidization of broadband by municipal services from other utility revenues, we don't address that issue here. We do note, however, that the municipal cross-subsidies prohibited by the law are of a completely different nature than private broadband cross-subsidies.

example, to become a nationwide or even statewide broadband provider. EPB may have public service or political motives for extending service somewhat, but absent profit motive, it is unlikely to seek to extend its service beyond a relatively small geographic area in which it receives these benefits. In fact, particularly because doing so entails large upfront expense, local government is likely to restrict any efforts to do so to the extent that they imperil the financial health of the government. The most powerful evidence of this comes from the fact that, although its reach is unrestricted by law,⁹⁷ EPB's telephone service territory is limited to its electricity boundary—a small area in Chattanooga's immediate vicinity.⁹⁸

Consider the area around Chattanooga. As Exhibit 1 to the Chattanooga Petition makes clear, while Chattanooga itself benefits from EPB's deployment, there are significant areas around the city that are lacking in service; similarly, there are significant areas already serviced by private broadband providers.⁹⁹ Unless and until all of the areas currently lacking service are served by EPB, those areas are made less likely to be served by private providers who have reduced incentive to leverage their Chattanooga network to make further infrastructure investments in these areas. From the perspective of ensuring the broadest possible coverage and overcoming the digital divide, Chattanooga's municipal broadband service is actually an impediment.

It is also noteworthy that so much of the area around Chattanooga is already serviced by private broadband providers. These are decidedly high-cost areas, and certainly more costly to service than EPB's largely urban service area (which already had broadband service when EPB came along, of course¹⁰⁰). The claim that municipal service is essential to ensure broadband ubiquity is betrayed by EPB's own map, which shows that private providers had the incentive and ability to expand broadband access widely.

If Section 706 is an independent grant of authority that authorizes the FCC to intervene in state broadband regulation for the sake of Section 706's mandate, intervening for the purpose of

⁹⁷ See EPB Petition, at 2, 15-16.

⁹⁸ See *id.* at 16-17.

⁹⁹ *Map Showing Areas Unserved or Underserved by Broadband*, Exhibit 1 to EPB Petition Pursuant to Section 706 of the Telecommunications Act of 1996, 1 (Mar. 20, 2006), available at <https://www.epb.net/downloads/legal/EPB-FCCPetition-Exhibits.pdf#page=1>.

¹⁰⁰ See TNWatchdog Staff, *Chattanooga Residents Get Internet Courtesy of Taxpayers*, TENNESSEEWATCHDOG (Dec. 21, 2011), available at <http://watchdog.org/1019/tn-chattanooga-residents-get-internet-courtesy-of-taxpayers/> ("As stated at the time, EPB wanted its new telecommunications division, still a government-run entity, to take at least 35 to 50 percent of the cable TV, telephone and high-speed Internet market from the private entity Comcast, the primary provider of such services in Chattanooga.").

undoing or limiting state limitations on municipal broadband fails to further the Section's objectives, and Section 706 cannot be said to authorize such an intervention. It would be contrary to Section 706 for the Commission to support municipal broadband deployment where doing so would impede private providers' incentives to build out in under-served and high-cost areas. As the Commission has said elsewhere:

[T]he Commission has recognized that one of the most significant barriers to investment in broadband infrastructure is the lack of a "business case for operating a broadband network" in high-cost areas "[i]n the absence of programs that provide additional support." Extending federal support to carriers deploying broadband networks in high-cost areas will thus eliminate a significant barrier to infrastructure investment and accelerate broadband deployment to unserved and underserved areas of the Nation. The deployment of broadband infrastructure to all Americans will in turn make services such as interconnected VoIP service accessible to more Americans.¹⁰¹

Supporting municipal broadband would undermine the "business case for operating a broadband network" as much as would removing "programs that provide additional support."

B. Competition is adversely affected by municipal broadband

Government-owned networks are also more susceptible than private networks to competition problems that may impede the purposes of Section 706 and impose costs.

In the first place, although Petitioners promote their networks as offering a competing, additional broadband option in areas where private networks already offer service, there is every reason to expect that taxpayer-subsidized competition from government-owned networks will crowd out further private investment and will ultimately lead to the termination of private service. We should be more wary of government-supported monopolies than private ones.

The monopoly result is, in fact, more likely to arise with the presence of government-owned networks. Public service providers have an incentive, like private firms, to lower prices to drive out competition. But, unlike private firms, they also have an incentive to keep prices relatively low. While this may *seem* beneficial (and, indeed, public firms tend to engage in cross-subsidization in order to offer below-cost pricing to some consumers), public firms' ability to credibly commit to predatory or below-cost pricing means the likelihood of competitive entry

¹⁰¹ USF/ICC Modernization Report and Order at ¶ 67.

is lower, ensuring the longevity of the public monopoly. Private firms, on the other hand, cannot credibly commit to predatory pricing and are constantly under threat of competition from new entrants.¹⁰²

Moreover, the cross-subsidization of below-cost pricing by public firms is often employed for the purpose of expanding output—bringing more customers under its control. Again, while this may sound good, where private broadband would otherwise already offer service and where public below-cost pricing would induce consumers to purchase services they don't need (and that might also come with undesirable non-price conditions like surveillance and free speech restraints), public provision of monopoly services can lead to greater social cost than competition or even private, monopoly provision of services.¹⁰³ As a result of these incentives, it turns out that public enterprises are actually *more* likely than their private counterparts to engage in anticompetitive conduct:

Even though they may be less concerned with generating profit, [government-owned enterprises] have stronger incentives than profit-maximizing firms to pursue activities that disadvantage competitors.¹⁰⁴

Finally, government-owned enterprises are generally exempt from antitrust scrutiny, and, even where relevant laws may apply, governments are far less likely to challenge the practices of entities they own than they are to challenge private firms.¹⁰⁵ As a result there is further reason to expect public enterprises to engage in anticompetitive conduct.

VII. If the FCC Preempts, It Should Make Clear that Preemption Would Not Apply to Laws Mandating Open Access for Government-Owned Networks

As we have discussed, we believe that the FCC should not preempt state laws restricting municipal broadband. But if the FCC does decide to intervene, it should do so in the least intrusive way possible, and in the manner most likely to encourage broadband deployment and competition (the stated goal of Section 706). Arguably that means requiring (or, at minimum, explicitly permitting) state laws mandating that government-owned networks be operated on

¹⁰² LOTT, *supra* note 51, at 64-68.

¹⁰³ *See id.* at 68-73. *See also* David E. M. Sappington & J. Gregory Sidak, *Anticompetitive Behavior by State-Owned Enterprises: Incentives and Capabilities*, in R. RICHARD GEDDES, *COMPETING WITH THE GOVERNMENT: ANTI-COMPETITIVE BEHAVIOR AND PUBLIC ENTERPRISES* 1-18 (2004).

¹⁰⁴ Sappington & Sidak, *supra* note 103, at 2.

¹⁰⁵ *See* Angela M. Diveley, *Clarifying State Action Immunity Under The Antitrust Laws: FTC v. Phoebe Putney Health System, Inc.*, 25 ST. THOMAS L. REV. 73, 75-84 (2012).

an open-access basis, such that private companies can lease part or all of the government-owned network to provide their own service. Some municipal broadband advocates have argued for exactly this result:

Community fiber, properly deployed and managed, can give at least some of us a way out. One particularly attractive model is called "open access." Under an open access model, the local municipality might be the owner of the fiber infrastructure, but agrees to lease access to the system to anyone on non-discriminatory terms. This opens up the possibility of having many local ISPs competing for your business over the same fiber infrastructure.¹⁰⁶

While open access mandates imposed on private companies are likely to undermine investment and thus harm consumers, open access mandates imposed on *government-owned networks* may be necessary to ensure that taxpayer construction of such networks does not crowd out private investment.

If Section 706 permits the FCC to preempt state rules at all, it does so only in order to

encourage the deployment on a reasonable and timely basis of advanced telecommunications capability *to all Americans*...in a manner consistent with the public interest...[by utilizing] measures that promote competition in the local telecommunications market.¹⁰⁷

However, as we have discussed, a local government deploying its own broadband wires does *not* encourage the deployment of advanced telecommunications "to all Americans," or even to those Americans living immediately outside its selected areas of deployment. In fact, because it would substitute ownership of a small-area network for a broader network that serves both well-served and under-served areas, government ownership of a broadband provider would likely *discourage* broader deployment and competition overall.

Because the FCC can preempt state laws prohibiting municipal broadband only if it does so in a manner that encourages further competition, preemption to facilitate this simple substitution would not be permissible under the statute. But it is possible that the FCC could intervene if doing so led to the creation of openly accessible conduit, openly accessible rights of way or

¹⁰⁶ Corynne McSherry & Brian Carver, *Hate Your ISP? Maybe You Need Community Fiber*, ELECTRONIC FRONTIER FOUND. (Jul. 31, 2014), <https://www.eff.org/deeplinks/2014/07/hate-your-isp-maybe-you-need-community-fiber>.

¹⁰⁷ 47 U.S.C. § 1302 (emphasis added).

even open access fiber—all forms of government intervention that would *facilitate* further competition.

The first step toward exercising this authority in a rational manner, of course, would be for the FCC to conduct a rulemaking laying out how government-owned networks can facilitate broadband competition, including consideration of mandated open access provisions.

In short, if the FCC does have such sweeping powers to intervene in state broadband regulations and the operation of municipal broadband, it must first determine that the specific manner of its intervention satisfies the clear goals of Section 706, the provision ostensibly authorizing its intervention in the first place. Anything less would be arbitrary and capricious and a gross abuse of the sweeping powers claimed by the FCC.

Importantly, such mandates should not and cannot apply to privately owned broadband networks. Municipal authorities have access to municipal bonds or other low-cost financing, taxes, assessments, and the like. They are not subject to market forces or beholden to shareholders, and they need not operate to maximize profits, but rather to support the government's "nonprofit" functions. Meanwhile, it is indisputable that private broadband providers have no such luxury and can invest only where they expect a sufficient return. Not only would mandating open access for private broadband deter investment, it would also be an illegal regulatory taking, insofar as it deprives private broadband providers of the revenue base they may need to sustain their deployment, especially to relatively unprofitable areas.

To be clear, we do not know that mandating open access for government-owned service would meet the requirements of Section 706—but neither does the Commission. Our point is that while preempting the statutes at issue here may well contravene the purpose of Section 706, there may be no such problem with the FCC acting to preference open access government networks or networks with some other form of limited government ownership (assuming, *arguendo*, that Section 706 is actually an independent grant of authority in the first place). It is incumbent upon the Commission to determine whether any sort of limitation on government ownership is required, and to ensure that its intervention leads to that outcome rather than what is effectively a blank check for municipal broadband build-out—regardless of the actual effect on the public interest.

In other words, if the FCC insists on preemption, it may not simply preempt just *any* state laws that restrict municipal broadband networks, because some of these laws (including the laws at issue in this proceeding) almost certainly in fact encourage private deployment. Instead, it may preempt state laws *only* to the extent that they prohibit certain forms of government networks (like *open access* municipal networks) that might, in fact, encourage further broadband

deployment on the whole. The dividing line between these scenarios has not been explored, and serving the public interest requires a much more nuanced approach.



International Center
for Law & Economics

Reply Comments of

**Geoffrey A. Manne, Executive Director
International Center for Law and Economics**

**Ben Sperry, Associate Director
International Center for Law and Economics¹**

&

**Berin Szoka, President
TechFreedom²**

In the Matter of

**Connect America Fund
Universal Service Gigabit Communities
Race-to-the-Top Program Petition**

**WC Docket No. 10-90
RM-11703**

September 26, 2013

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Introduction

It's been said, of the newest technology, that speed could change everything. If only we could cross a certain speed threshold, our basic infrastructure would catalyze new opportunities we can scarcely even conceive of. All government needs to do is prime the pump: fund a demonstration project to prove that we *can* do it, and markets will follow. The demand may not be there yet, but "if you build it, they will come."

The technology in question? The Concorde, of course — a plane that cost billions to produce, cost far more than standard air transport, and *still* operated at a loss, despite ongoing subsidies. Whatever its technological merits, Concorde was a dead-end as a viable business venture. The problem wasn't that it wasn't fast enough or even that it just wasn't quite cheap enough, but that there was no market for supersonic transport. After the initial government-funded development of the Concorde, no significant follow-on development occurred, no price-reducing technologies emerged, no carrier thought about bringing its impressive speed to the masses — because, even today, the market doesn't demand it.

The parallels with gigabit fiber broadband should be obvious — and worrisome. As the New America Foundation's Charles Kenny (in a study co-authored with Robert Kenny), put it:

All else equal, faster is better – surely. But faster technologies don't always triumph; think of passenger hovercraft, maglev trains, and supersonic airliners. These technologies didn't fail because they weren't superior, but because the demand wasn't there, or was insufficient to justify cost. Concorde (if it hadn't retired) would still be the fastest passenger aircraft today, having first flown in 1969. At the time it was being developed, supersonic passenger flight was expected to become ubiquitous. It turned out that the incremental benefits of speed to most customers was not worth the extra cost.³

The point is that supersonic air travel technology hasn't progressed since 1969 because *even now* — let alone in 1969 — there is insufficient demand to support it.

The same 1960s technocratic mindset underlies today's calls for public-financed gigabit networks. Both rest on the same core fallacy: the technologies (in both cases focused solely on speed) behind today's transportation/communications networks are inadequate to support the next generation of uses — and government subsidies are required to get us from "here" to "there."

But, as with the Concorde, there is no "there" there:

[F]iber to the home may be no more worth[y] of subsidy than Concorde. Flashy and exciting, to be sure – but ultimately not worth the price.⁴

Air transportation *was* transformed during the period Concorde operated (1976 to 2003), but that transformation had nothing at all to do with the lavish public subsidies for Concorde (either up front or ongoing) and everything to do with smarter public policy — removing regulatory barriers that had dictated a specific (inefficient) market structure and protected incumbent operators from competition.

³ Robert Kenny and Charles Kenny, *Superfast: Is It Really Worth a Subsidy?* (Communications Chambers, November 2010), available at http://charleskenny.blogs.com/files/overselling_fibre_1127.pdf.

⁴ *Id.*

The price of air transportation has fallen by almost 50% since deregulation.⁵ People got what they wanted: safe, inexpensive air travel, not supersonic speed. One of the heroes of this transformation, Ryanair CEO Michael O’Leary, had this to say about air travel and the mindset that brought us the Concorde:

The problem with aviation is that for fifty years it’s been populated by people who think it’s this wondrous sexual experience; that it’s like James Bond and wonderful and we’ll all be flying first class when really it’s just a bloody bus with wings.... Most people just want to get from A to B. You don’t want to pay £500 for a flight.⁶

Most people want to use the Internet to surf the Web, send emails and watch videos. And whether they have to pay for it directly, through taxes, or through forestalled investment elsewhere, there’s little evidence that they want or need the broadband equivalent of supersonic transport to do what they want to do online. Perhaps most important, there is no evidence of market failure in need of correction — no evidence that today’s ISPs and today’s infrastructure are failing to offer the speed and other characteristics that users demand, nor that they will fail to do so in the future. Broadband *is* getting faster – just not fast enough for those who think of broadband the way people once thought of the Concorde.

Before we use taxpayer funds to subsidize the Concorde of the Internet, we should be sure there is a sound basis for doing so. ISPs are already supplying broadband well excess of current and anticipated demand (as defined by speed, capacity, latency, *etc.*) and ISPs seem fully capable of meeting all anticipated demand. Moreover, this is true based on current and future investment by ISPs (more than \$50 billion worth in 2012 alone according to the Progressive Policy Institute⁷) — investment that has been sufficient to ensure that there has never yet been a real supply bottleneck in broadband.

This isn’t to say there’s no role for government. There are some impediments to the sort of broadband connectivity people actually *do* want — most importantly local and state regulations that reduce competition and increase the cost of new facilities. The FCC should consider ways to encourage state and local governments to reduce these regulatory barriers rather than create an expensive new program to subsidize a particular technology (fiber) picked because of an arbitrary, top-down decision that people should have a certain speed – even if they don’t yet want it.

The FCC should heed the wisdom of Australia’s new Communications Minister who explained his government’s decision to abandon plans for a national fiber-to-the-home network in favor of subsidizing far less expensive, but slightly slower, fiber-to-the node connectivity:

⁵ Mark J. Perry, *Even with baggage fees, the ‘miracle of flight’ remains a real bargain; average 2011 airfare was 40% below 1980 average*, AEI IDEAS (Oct. 6, 2012), <http://www.aei-ideas.org/2012/10/even-with-baggage-fees-the-miracle-of-flight-remains-a-real-bargain-average-2011-airfare-was-40-below-1980-level/>.

⁶ Jonathan Glancey, *Concorde: A 20th Century Design Classic*, BBC (May 30, 2013), <http://www.bbc.com/culture/story/20130529-concorde-on-a-different-plane>.

⁷ Diana G. Carew & Michael Mandel, U.S. Investment Heroes of 2013: The Companies Betting on America’s Future, PROGRESSIVE POLICY INSTITUTE (Sep. 2013), http://www.progressivepolicy.org/wp-content/uploads/2013/09/2013.09-Carew-Mandel_US-Investment-Heroes-of-2013.pdf.

The Government is thoroughly open-minded; we are not dogmatic about technology. Technology is not an ideological issue; we are completely agnostic about it. What we want to do is get the best result for taxpayers and consumers as soon as possible.⁸

There's No Economic Basis for Artificially Promoting Gigabit Fiber

The petition envisions a world where gigabit speed is a necessity, despite the lack of demand for such speeds, or any proof that ISPs are incapable of meeting either current or future demand.

The Petitioner believes gigabit fiber technology is necessary to “turn consumers into producers, engender collaboration, and unlock a wide range of creative activities,”⁹ but this ignores the considerable extent to which current broadband capabilities have already led to this result, *in response to actual, demonstrated consumer demand*.

As the National Broadband Map shows, American citizens have increasingly adopted faster Internet services as they perceived the need to do so for their employment and entertainment needs.¹⁰ In a recent survey, the number one reason cited for why offline adults don't use the Internet is not access, price, or speed, but relevance, followed closely by usability (*i.e.*, the adult's ability to make sense of the Internet).¹¹ To put it another way, supply has closely paralleled demand — almost as if, despite governmental barriers to competition, markets worked reasonably well.

Further, the quality content consumers demand still costs time and money to produce. It is simply not the case that an increase in speed will reduce transaction costs so dramatically that it will on its own facilitate radically new models of production.

High quality video streaming leads the way among data-intensive services in driving demand for faster networks. But, even here, the speeds currently available in the marketplace are quite ample for most consumers. Today, as little as 3.8 Mbps is all that is necessary to run Netflix's current video service, which has led one critic to ask “How much faster [Internet service] does anybody really want or need?”¹² Even Netflix Super HD, which streams at the maximum supported by most televisions and screens (1080p) requires only 5-7 Mbps.¹³ And now Netflix has announced plans to launch 4K video (four times

⁸ Greg Hoy, *Government aims for NBN cost and time savings*, AUSTRALIAN BROADCASTING CORPORATION (Sep. 24, 2013), <http://www.abc.net.au/7.30/content/2013/s3855656.htm>.

⁹ Fiber-to-the-Home Council Americas' Petition for Rulemaking to Establish a Gigabit Communities Race-to-the-Top Program 2, WC Docket No. 10-90, *available at* <http://civsourceonline.com/wp-content/uploads/2013/07/Fiber-to-the-Home-Council-Petition-for-Rulemaking-July-23-2013-.pdf> [hereinafter “Petition”].

¹⁰ *Broadband Statistics Report: Access to Broadband Technology by Speed*, NATIONAL BROADBAND MAP (Jul. 2013), <http://www.broadbandmap.gov/download/Technology%20by%20Speed.pdf>.

¹¹ Andrea Peterson, *The 15 percent of American adults who are offline, in charts*, THE SWITCH (Sep. 25, 2013), http://www.washingtonpost.com/blogs/the-switch/wp/2013/09/25/the-15-percent-of-american-adults-who-are-offline-in-charts/?wpisrc=nl_tech.

¹² David Talbot, *Not So Fast: A Google Fiber One-Gigabit Mystery*, MIT TECHNOLOGY REVIEW (Sep. 20, 2013), <http://www.technologyreview.com/view/519466/not-so-fast-a-google-fiber-1-gigabit-mystery/>.

¹³ *Netflix Super HD* (last accessed Sep. 26, 2013), <https://support.netflix.com/en/node/8731>.

the resolution of 1080p¹⁴) in 2014, claiming even this impressive quality increase would require only 15 Mbps.¹⁵

Moreover, absolute network speed isn't always the most price effective means of serving content quickly and myriad other network improvements can do as much or more to enable the quality of service users demand. Networks continue to develop and implement innovative network management technologies (like CDNs, for example) to reduce physical distance, optimize network routing, and compress or streamline data, among other things. Without any prodding from the government, broadband providers are investing in and developing technologies to make their networks faster, yes, but also more reliable, secure and robust. They're also working to make their service more affordable.

Government Failure Is More Established than Market Failure

Markets aren't perfect, but they tend to reward companies for providing things consumers want, in a cost-effective manner. Private firms have an obligation to maximize value for their shareholders and therefore must make financially sustainable investments driven by actual consumer demand. Public entities, on the other hand, do not have these incentives, and, as a result, they can (and sometimes do) engage in speculative projects at tremendous cost to taxpayers. *See, e.g.*, the Concorde. Unfortunately, the petition is premised on the idea that government-financed projects will outpace market-driven investment.

The Petitioner's reliance on local governments to manage these projects ignores economic theory and the evidence. Local governments are not well suited to finance, construct, and manage broadband Internet access networks. The evidence is overwhelming. The city of Groton, Connecticut borrowed \$34.5 million to build a broadband network, ran the network at a \$2.5 million annual loss, sold the network for \$550,000, and left taxpayers with the bill.¹⁶ Similarly, the "financially troubled" (and ironically named) UTOPIA project has saddled Utah cities with debt, leading at least one such city to propose property tax increases in order to meet its network-related debt obligations.¹⁷ Tellingly, this city's leadership has fought for the right to omit any mention of UTOPIA in its tax increase referendum because, in the words of one resident, it is "embarrassed about the financial fiasco that UTOPIA has caused."¹⁸

Other examples abound. LUS Fiber in Lafayette, Louisiana faced revenue problems for years due to insufficient uptake from consumers, having to readjust projections and repayment plans several

¹⁴ *What is the difference between 1080p and 4K resolution?* (last accessed Sep. 26, 2013), http://esupport.sony.com/p/support-info.pl?info_id=1348&template_id=1®ion_id=3.

¹⁵ Jeff Baumgartner, *Netflix CEO: 15-Meg Will Be Good Enough To Stream 4K*, MULTICHANNEL NEWS (Sep. 20, 2013), <http://www.multichannel.com/distribution/netflix-ceo-15-meg-will-be-good-enough-stream-4k/145595>.

¹⁶ *See* Deborah Straszheim, *How a Promising Idea Went Terribly Wrong in Groton*, GROTON PATCH (Jan. 6, 2013), *available at* <http://groton.patch.com/groups/politics-and-elections/p/how-a-promising-idea-went-horribly-wrong-in-groton>; Greg Smith, *Groton's Deal to Shed TVC Finalized as New Owners Take the Reigns*, THE DAY (Feb. 1, 2013), *available at* <http://www.theday.com/article/20130201/NWS01/130209982/0/Search>.

¹⁷ *See* Steven Oberbeck, *Orem Tax Hike Ballot to Fund UTOPIA Won't Mention the Troubled Network*, THE SALT LAKE TRIBUNE (Sept. 13, 2013), *available at* <http://www.sltrib.com/sltrib/money/56862022-79/utopia-ballot-orem-court.html.csp>.

¹⁸ *See id.*

times.¹⁹ And the fiber network in Provo, Utah, known as iProvo failed so badly²⁰ that it was first sold to Broadwave Networks and then essentially given away to Google for \$1. In the meantime, it cost taxpayers millions of dollars in an attempt to pay off its debt.²¹

Outside of the United States, Australia's National Broadband Network has fallen victim to mismanagement, political turmoil, and massive cost overruns. The project began as a government plan to invest \$43 billion to build fiber-to-the-premises facilities to 90% of Australian homes, schools, and workplaces,²² but it eventually became clear that costs would run tens of billions of dollars over budget.²³ New leaders proposing to scale the project back to a fiber-to-the-node architecture in order to reduce costs were recently elected,²⁴ and the future of Australia's National Broadband Network now hangs in the political balance.²⁵

Similarly in Finland, a fiber project that bears striking resemblance to the petition is struggling. Sparsely populated areas of the north are especially hard to wire, leading to much higher total costs for the initiative. In total, the price tag to bring 100 Mbps of service to within two kilometers of all of Finland will be up to a staggering €53,000 (\$68,000) per household.²⁶ For their own part, regional authorities have been burdened with the excessive bureaucracy, and many of the local projects slated for development have had to wait because the actual bill has been more than projected.

At the same time, private firms are making significant investments to increase speeds and access to their networks. 82% of American homes are passed by (if not connected to) a broadband network capable of speeds of 100 Mbps or higher.²⁷ AT&T, for example, is successfully embracing innovative techniques to offer speeds of 45 Mbps (more than eleven times the FCC's threshold defining broadband and perfectly capable of streaming Netflix's 4K video) to consumers over retrofitted copper lines, and it

¹⁹ Nathan Stubbs, *Inside LUS Fiber's new marketing push and why it's crucial to the business' long-term success*, IND (Nov. 24, 2010), <http://www.theind.com/cover-story/7339-market-share>.

²⁰ Steve Titch, *Spinning its Wheels: An Analysis of Lessons Learned from iProvo's First 18 Months of Municipal Broadband*, REASON FOUNDATION (Dec. 2006), <http://reason.org/files/33224c9b01e12f3b969f4257037c057e.pdf>; Steve Titch, *Think Tank: iProvo's Losses at \$8 Million and Counting*, REASON FOUNDATION (Apr. 16, 2008), http://www.reason.org/news/iprovo_municipal_wifi_broadband_update_041608.shtml.

²¹ Steve Gehrke, *iProvo gets OK for tax surplus: Council votes 5-1 to bail out fiber-optic system*, THE SALT LAKE TRIBUNE (Jun. 6, 2007), available at http://www.sltrib.com/SEARCH/ci_6080894.

²² See Joint Media Release by Steven Conroy, Minister for Broadband, Communications and the Digital Economy, *et al.*, "New National Broadband Network" (Apr. 7, 2009), available at http://www.minister.dbcde.gov.au/conroy/media/media_releases/2009/022.

²³ See Annabel Hepworth, *NBN Costs Set to Soar Past \$60bn*, THE AUSTRALIAN (July 24, 2013), available at <http://www.theaustralian.com.au/business/in-depth/nbn-costs-set-to-soar-past-60bn/story-e6frgaif-1226684023561>.

²⁴ See "The Coalition's Plan for Fast Broadband and an Affordable NBN" (Apr. 2013), available at <http://lpaweb-static.s3.amazonaws.com/Policies/NBN.pdf>.

²⁵ See Annabel Hepworth, *Coalition to Delay NBN Laws Until 2014*, THE AUSTRALIAN (Sept. 13, 2013), available at <http://www.theaustralian.com.au/national-affairs/election-2013/coalition-to-delay-nbn-laws-until-2014/story-fn9qr68y-1226718041481>.

²⁶ Cyrus Farivar, *Finland: Plan for universal 100Mbps service by 2015 on track*, ARSTECHNICA (Oct. 31, 2012), <http://arstechnica.com/business/2012/10/finland-plan-for-universal-100mbps-service-by-2015-on-track/>.

²⁷ Richard Bennett, Luke A. Stewart, & Robert D. Atkinson, *Key Facts from "The Whole Picture: Where America's Broadband Networks Really Stand"*, ITIF (Feb. 2013), available at <http://www2.itif.org/2013-whole-picture-key-facts-broadband.pdf>.

plans to offer speeds as high as 100 Mbps over this plant in the future.²⁸ And numerous 4G wireless broadband providers are rapidly deploying LTE to all corners of the country while eyeing LTE Advanced as a means of boosting wireless connection speeds even further.²⁹ Indeed, even when it comes to the ultra-fast services for which the Petitioner yearns, Comcast and Verizon FiOS already offer consumers downstream speeds as high as 505 Mbps,³⁰ and the next generation of cable modem technology, DOCSIS 3.1, will enable speeds well beyond 1 Gbps.³¹

In other words, without relying on government subsidies for a particular technology, private companies are fulfilling actual consumer demand for speed and other network improvements sufficient to ensure a robust present and future for Internet access.

What Government Can Do: Deregulation

The evidence demonstrates that the private sector will continue to meet consumer demand, but there are still actions that governments at all levels can take to promote this goal: Reduce anti-competitive regulatory barriers to entry.

Kansas City's willingness to ease regulatory restrictions was essential to Google's decision to deploy its fiber network there.³² Despite the failure of municipal fiber in Provo, Utah, Google has also stepped in there to buy the network, and has made plans to provide a free 5 Mbps download / 1 Mbps upload option.³³ Google was able to move quickly into Provo because the city willingly sold its existing infrastructure for \$1 after struggling to keep the network afloat.³⁴ And while not all the details are known, Google also has plans to deploy fiber in Austin, Texas, which made deal with Google similar to Kansas City's.³⁵

It is unfortunate that the Petitioner has seemingly forgotten the recommendations made in its own May 2013 Fiber Friendly Communities Report. There, the Fiber-to-the-Home Council urges local governments to adopt a mostly deregulatory agenda in order to "meaningfully reduce deployment

²⁸ See AT&T Press Release, "45 Mbps U-Verse Internet Service Arrives in 40 Additional Markets" (Aug. 26, 2013), available at <http://www.att.com/gen/press-room?pid=24734&cdvn=news&newsarticleid=36934>.

²⁹ See Sue Marek, *LTE Advanced is the Next Competitive Battleground for Operators*, FIERCEWIRELESS (June 28, 2013), available at <http://www.fiercewireless.com/story/lte-advanced-next-competitive-battleground-operators/2013-06-28>.

³⁰ See Steve Donahue, *Comcast Jacks Speed of Xfinity Platinum to 505 Mbps*, FIERCECABLE (Sept. 18, 2013), available at <http://www.fiercecable.com/story/comcast-jacks-speed-xfinity-platinum-505-mbps/2013-09-18>; Verizon Press Release, "Summer Just Got Hotter: Verizon Rolls Out New, Blistering 500/100 Mbps FiOS Quantum Internet Service" (July 22, 2013), available at <http://newscenter.verizon.com/corporate/news-articles/2013/07-22-verizon-rolls-out-500-100-mbps-fios-service/>.

³¹ See Todd Spangler, *Cable-Tec Expo: DOCSIS 3.1 to Blaze Trail Toward 10 Gig Speeds*, MULTICHANNEL NEWS (Oct. 18, 2012), available at <http://www.multichannel.com/cable-operators/cable-tec-expo-docsis-31-blaze-trail-toward-10-gig-speeds/139883>.

³² See FCC News Release, Statement of Commissioner Ajit Pai on his Visit to Kansas City's Google Fiber Project (Sept. 5, 2012), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-316114A1.pdf.

³³ Seth Rosenblatt, *Google Fiber Reveals Plan for Provo*, CNET NEWS (Aug. 15, 2013), http://news.cnet.com/8301-1023_3-57598760-93/google-fiber-reveals-plans-for-provo/.

³⁴ Charlie Osborne, *Google to buy \$39m Provo fiber service for \$1*, ZDNET (Apr. 19, 2013), <http://www.zdnet.com/google-to-buy-39m-provo-fiber-service-for-1-7000014270/>.

³⁵ Colin Pope, *Google Fiber in Austin: Here's what we know*, AUSTIN BUSINESS JOURNAL (Sep. 23, 2013), <http://www.bizjournals.com/austin/blog/techflash/2013/09/google-fiber-in-austin-heres-what-we.html>.

costs and tip the balance in favor of FTTH network investment in your community.”³⁶ Among other things, the recommendations include:

- Defining an expeditious process for ongoing permitting and inspections
- Permitting innovative construction techniques
- Rethinking “must build” requirements and finding more flexible ways to ensure access
- Making all rights-of-way available on clearly defined, reasonable terms through a rapid approval process
- Making poles available on clearly defined, reasonable terms through a rapid approval process
- Providing space on all poles for new attachers, where government has authority to do so
- Adopting a “dig once” policy to inexpensively make fiber conduit readily available

On top of these local actions, the FCC’s establishment of a shot clock for wireless tower siting applications³⁷ (recently upheld by the Supreme Court), its recent efforts to facilitate access to rights-of-way,³⁸ and the President’s “Dig Once” Plan³⁹ for laying conduit under publicly financed roads are all very welcome steps. Such actions reduce the regulatory barriers to providing broadband Internet access service, increasing the potential for competition.

But there is, of course, a key distinction between these actions and the policies urged by the Petitioner — these actions allow market forces to operate more efficiently, whereas the Petitioner’s proposal would undermine market forces altogether.

What we need is open access to publicly owned infrastructure, not publicly-run networks.⁴⁰

The Petitioner Fails to Establish Benefits and Fails to Consider Costs

The Petitioner’s analysis relies heavily on select anecdotes and speculation about benefits, with no consideration of opportunity costs. The petition points to “[g]oal Number 4 of the NBP, [which] called for ‘[e]very American community [to] have affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals and government buildings.’”⁴¹ But neither the petition nor the NBP offers any evidence to support the alleged benefits of such speed, and nowhere

³⁶ Fiber Friendly Communities report, <http://www.ftthcouncil.org/d/do/1215>.

³⁷ See *Petition for Declaratory Ruling to Clarify Provisions of Section 332(c)(7)(B) to Ensure Timely Siting Review and to Preempt Under Section 253 State and Local Ordinances that Classify All Wireless Siting Proposals as Requiring a Variance*, Declaratory Ruling, 24 FCC Rcd. 13994 (2009), *aff’d City of Arlington, Tex. v. FCC*, 133 S.Ct. 1863 (2013).

³⁸ See *Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting*, Notice of Inquiry, FCC 11-51 (2011).

³⁹ Executive Order – Accelerating Broadband Infrastructure Deployment, June 14, 2012, *available at* <http://www.whitehouse.gov/the-press-office/2012/06/14/executive-order-accelerating-broadband-infrastructure-deployment>.

⁴⁰ See Berin Szoka, Matt Starr, & Jon Henke, *Don’t Blame Big Cable. It’s Local Governments That Choke Broadband Competition*, WIRED (Jul. 16, 2013), <http://www.wired.com/opinion/2013/07/we-need-to-stop-focusing-on-just-cable-companies-and-blame-local-government-for-dismal-broadband-competition/>.

⁴¹ Petition, *supra* note 9, at 8.

are opportunity costs considered. Much like the E-Rate goal referenced, the Petitioner's goal of 1 gigabit speed is analytically unsupported and arbitrary.⁴²

Focusing myopically on speed comes at a steep cost. As we stated in our E-rate Comments,

Meeting those [arbitrary speed] targets means dictating to schools and libraries that they should spend limited resources on broadband connections that they may not actually need or use, rather than address their real technological needs....

Without any evidentiary support...there is no rational basis for basing distribution of E-rate funds on these arbitrary targets, and there is some reason to think that...the target may be too high....

It's unlikely that there's one right mix for the entire country, that the FCC can design that mix today, or that it can expeditiously adjust the mix as technology changes. So rather than attempt to design the perfect digital connectivity program, the FCC should leave this up [to users] themselves."⁴³

Similarly, the Petitioner here wants to create a program that ignores the benefits of anything but gigabit fiber connections, at the cost of different, marginal, but important improvements in current broadband provision.

The goal of the universal service fund is to subsidize the construction of networks and the provision of services in parts of the country *where doing so would otherwise be uneconomical*. But the Petitioner's proposal to subsidize municipal broadband projects in areas that are already served by unsubsidized providers reaches far beyond this limited objective. Adopting this proposal would unfairly and unwisely distort the marketplace and weaken private-sector providers' incentives to continue investing in their networks. Moreover, the resources used to finance these efforts would be diverted from the Connect America Fund, directly undermining the Commission's universal service goals.⁴⁴

The Petitioner's plan will likely *reduce* private investment by crowding it out. Because 1 gigabit is the benchmark, areas that already have very high speed Internet of 100 Mbps all the way up to 999 Mbps could still be targeted for federal subsidies. While the petition allows such incumbents to have a proposal withdrawn, they must promise to build essentially the same 1 gigabit network, *in two years and with no government assistance*.⁴⁵ Not only is this unfair to companies that have invested a combined hundreds of billions of dollars in the last 20 years,⁴⁶ but this proposal would reduce the incentives for companies to raise and invest capital in high-speed networks going forward: Why bother if your competitors are going to do it with government assistance? Government will tilt the market in

⁴² Cf. *Comments of Geoffrey Manne & Berin Szoka In the Matter of Modernizing the E-Rate Program for Schools and Libraries*, WC Docket 13-184, Sep. 16, 2013, available at <http://apps.fcc.gov/ecfs/document/view?id=7520944261>.

⁴³ *Id.* at 3, 5, 6.

⁴⁴ See *USTelecom Comments In the Matter of Connect America Fund Universal Gigabit Communities Race-to-the-Top Program Petition 1-4*, available at <http://www.ustelecom.org/sites/default/files/documents/FTTH%20Petition%209-11-13.pdf>.

⁴⁵ Petition, *supra* note 9, at 19, n.50.

⁴⁶ See Ben Sperry, *Will the Real Broadband Heroes Please Stand Up?*, TRUTH ON THE MARKET, <http://truthonthemarket.com/2013/09/19/will-the-real-broadband-heroes-please-stand-up/>.

favor of companies spending resources lobbying for government subsidies instead of spending those resources on building the infrastructure itself.

Conclusion

The claim that the mere subsidization of the supply of gigabit networks will stimulate demand for those networks is a bastardization of economics. Supply side theory does not hold that if you artificially increase supply, then demand — and growth — will come. Rather, supply side theory says that low growth is due to low productivity. If you increase an economy's productive capacity by allowing resources to be put to their most productive use (through regulatory, tax or labor market reforms), then economic growth will occur. This is precisely what deregulatory reforms enabled in airlines and telecommunications.

The Petitioner's lofty goals (outlined in Section II of its petition) will not be achieved by blithely pouring taxpayer dollars into a politically favored particular technology or aiming at an arbitrary performance target. Rather, economic growth will come from the bottom-up co-evolution of technology and demand, facilitated by *removing* impediments to the free flow of resources and allowing the market to satisfy demand, increase productivity and create new opportunities. When policymakers do set certain societal goals, like bridging the digital divide, they should still channel market forces to the greatest extent possible. That means targeting smart subsidies to increase the buying power of those who want but can't afford broadband — *not* picking technological winners and losers. The Petition would more likely stymie, not stimulate, the continued investment in broadband necessary to make sure that supply keeps pace with demand in all respects that matter — not just speed but affordability and other aspects of quality service.



International Center
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Reply Comments of

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&

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In the Matter of

**Modernizing the E-rate Program for Schools and Libraries
WC Docket No. 13-184**

November 7, 2013

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Everyone agrees on the need to modernize the E-Rate program to reflect the communications needs of schools and libraries today and in the foreseeable future. But as we emphasized in our comments in this proceeding, meeting those needs cannot be reduced to setting arbitrary speed thresholds. Indeed, such thresholds will likely be counter-productive to the extent they divert funding away from the real priorities of particular schools and libraries:

Shifting E-rate's focus away from outdated telecommunications technologies to broadband makes sense. But focusing E-rate funding on essentially arbitrary speed targets does not. Meeting those targets means dictating to schools and libraries that they should spend limited resources on broadband connections that they may not actually need or use, rather than address their real technological needs.⁴

Our comments noted that, while the goal of gigabit per 1000 students has become a popular talking point, it has never actually been justified as an effective use of limited resources. The NPRM cites to a single report, produced by the State Educational Technology Directors Association, to support the claim. But, as we pointed out, that report makes an enormous and unjustified analytical leap from the download speeds involved in various services to the gigabit target conclusion.

In our review of the comments filed in this proceeding, we can find no response to our questions: What analytical basis, if any, is there for these speed targets? What are the actual current and expected near-term bandwidth demands of schools and libraries? Or, more generally, how should policymakers weigh the trade-off between funding higher speeds and funding other telecommunications needs of schools and libraries (connectivity, devices, etc.), or other related needs (training, IT support, etc.)? We offered a detailed list of questions, which simply have not been answered.

While everyone of course wants faster broadband, many commenters expressed similar concerns about the trade-offs that come with arbitrarily prescribing speed targets. The West Virginia Department of Education believes that the current proposals are arbitrary and might actually hinder the state's broadband development in the future.⁵ The State of Alaska faces a unique set of

⁴ Comments of Geoffrey A. Manne & Berin Szoka, *In the Matter of Modernizing the E-rate Program for Schools and Libraries*, Docket No. 13-184 (September 16, 2013), available at <http://apps.fcc.gov/ecfs/document/view?id=7520944261>.

⁵ Comments of West Virginia Department of Education, *Initial Comments By The West Virginia Department of Education Related to the E-Rate Notice of Proposed Rulemaking*, Docket No. 13-184 (September, 2013), available at <http://apps.fcc.gov/ecfs/document/view?id=7520943995>.

challenges for broadband deployment to its schools: because Alaska's school system spans vast rural expanses, it fears it will not be able to meet the speed requirements and worries what effect this will have on funding opportunities.⁶ The School District of Philadelphia pithily expressed our concern and the worries of countless other educational groups saying,

Attaching an arbitrary bandwidth requirement per student would result in overestimating need for some entities and perhaps lowering the bar of connectivity for others – the latter possibly resulting in denied funding requests where bandwidth needs are arbitrarily judged as excessive. In contrast, encouraging every school and library to “achieve” a certain baseline of bandwidth may unnecessarily drive funding demand and result in vastly underused infrastructure.⁷

Essentially, school districts and systems across the country are singing the same tune, but in different octaves: “We aren't sure that arbitrary broadband speed targets are going to fit our needs; instead, we need flexibility to direct funding to meet our particular telecommunications needs.” The FCC should listen.

Imposing speed thresholds would miss the more important goal of the E-Rate program: connecting the neediest schools. The record simply does not support imposing any kind of speed requirement or even target because no one has demonstrated that such targets will actually benefit students more than other potential uses of limited resources. In fact, even assuming infinite funding were available, no one has demonstrated that greater bandwidth has any direct educational benefits. This is not to say that more bandwidth *cannot*, in fact, have such benefits; rather, it is to say that insufficient bandwidth may not be the most relevant, current constraint on the ability of schools and libraries to effectively deploy broadband for educational purposes. If the real bottleneck isn't bandwidth, lavishing money on it will necessarily mean ignoring other problems that should take higher priority.

Given the paucity of real data available to guide decisions about how money should be spent, the FCC should defer, to the greatest extent possible, to schools and libraries themselves about how they think they can best spend money to meet their own needs. To the extent that the

⁶ Comments of the Alaska Department of Education and Early Development, *Initial Comments by The Alaska Department of Education and Early Development and the Alaska State Library Related To The E-Rate 2.0 Notice Of Propose Rulemaking*, Docket No. 13-184, available at <http://apps.fcc.gov/ecfs/document/view?id=7520944002>.

⁷ Comments of the School District of Philadelphia, *Comments of the School District of Philadelphia in Response to Notice of Proposed Rulemaking*, Docket No. 13-184, available at <http://apps.fcc.gov/ecfs/document/view?id=7520944146>.

Commission must make decisions about how to prioritize certain services in allocating funding unequally among schools, the FCC simply does not have enough data to make informed decisions about the trade-offs between funding faster broadband and meeting other technological needs. For that reason, the FCC should issue a Further Notice of Proposed Rulemaking that returns to the question, buried in the NPRM, that should have been central to this proceeding: “Is there a way to measure how success in the classroom is affected by access to E-rate funding or services supported by E-rate?”⁸ So far the answer appears to be “no.”

⁸ Indeed, the FCC should have issued a Notice of Inquiry before issuing this NPRM for precisely this reason – a mistake the FCC all too often makes, frequently putting the Commission in the awkward position of being on the verge of rulemaking without first properly exploring the facts on the ground. This is the worst kind of putting the cart before the horse. What Commissioner Pai in another context wrote about the wisdom of conducting an NOI before an NPRM is apt here: “We simply ask a lot of questions about where things stand, which is typically what we would do in a Notice of Inquiry. While I of course support soliciting comment as we begin this journey, I think the better approach here would have been to ask for input on where we intend to go. The public is better served if attention can be focused on proposed rules, and the FCC’s ultimate decisions are better informed by direct, as opposed to general, public engagement.” Policies Regarding Mobile Spectrum Holdings, WT Docket No. 12-269. For the same reasons, the FCC Process Reform Act, passed by the House last Congress, would generally require the FCC to issue a Notice of Inquiry prior to conducting a rulemaking. See the current version at <http://docs.house.gov/meetings/IF/IF16/20130724/101215/BILLS-113pih-FCCProcessReform.pdf>



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WC Docket No. 13-184

September 16, 2013

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In the 1996 Telecommunications Act, Congress created a cluster of Universal Service Programs to ensure that schools, libraries, high-cost areas and the poorest Americans are connected to the telecommunications networks. As those networks have been transformed by technological change, those subsidy programs have become increasingly disconnected from the reality of modern communications technologies. The Commission's Notice of Proposed Rulemaking on modernizing E-rate marks the next administrative step towards crafting a new framework for the USF program.

No one doubts the need for modernization, but sensible modernization requires ensuring that taxpayer dollars are used efficiently to achieve clearly conceived and effective goals. In particular, that means rigorously justifying any bandwidth "targets" in terms of actual needs, pedagogical efficacy, and tradeoffs.

Key Recommendations

- **Leave broadband speeds to the marketplace:** The FCC has not justified the ambitious, and expensive, bandwidth targets proposed in the NPRM. The FCC should *collect more data and carefully consider it before setting any minimum bandwidth levels*.
- **Avoid perverse incentives and concentrated disbursements:** Institutions that receive larger discounts have less incentive to spend their dollars efficiently. For example, a school receiving a 90% discount pays only \$1 for each \$9 it receives from the E-rate program. This disparity has historically led to schools with a 90% discount requesting about twice as much from E-rate as schools receiving up to a 79% discount. When schools have little skin in the game, they are prone to request much more than they need and to spend it carelessly, which means other schools may receive little or no subsidies. The FCC should *focus on facilitating basic broadband connectivity at schools and libraries* by better spending existing E-rate funds to ensure broader distribution where funds are most needed. The Commission should avoid aiming for grandiose, arbitrary speed or bandwidth targets that do not actually reflect the needs of schools and libraries and would likely further centralize disbursements.
- **Maintain transparency and accountability:** There is currently no mechanism to monitor how schools and libraries use their funding, nor whether the disbursed funds are connected to desirable educational outcomes. The FCC should *require E-rate recipients to publicly report exactly how they are using their funding* so taxpayers and the Commission can curb waste, fraud and abuse in the program. The FCC

should itself ***undertake to assess the empirical connection between its E-rate program design and educational outcomes*** and it should use this data to determine the optimal program structure, permitting recipients to use funds to achieve the best possible outcomes rather than to comply with arbitrary program targets.

- **Re-prioritize technologies:** E-rate still prioritizes traditional telephone services, even paging, ahead of broadband connectivity for classrooms. The fact that Priority Two services are fulfilled only after Priority One funds are dispersed means that 80% of requests for actually bringing broadband into classrooms are denied. The FCC should ***adjust the E-rate program so that it no longer funds traditional landline telephone service or other obsolete technologies***, and instead focuses on connecting students to the Internet via broadband connections, which can more cheaply deliver Internet-based services like VoIP telephony. It should also ***collapse the Priority One/Priority Two distinction***. Bottlenecks and architecture limitations are as or more likely to arise on internal networks as on external ones. Schools and libraries should be able to use E-rate funds to support infrastructure improvements wherever they are most cost effective.

Broadband Speeds Should Be Left to the Marketplace

Shifting E-rate's focus away from outdated telecommunications technologies to broadband makes sense. But focusing E-rate funding on essentially arbitrary speed targets does not. Meeting those targets means dictating to schools and libraries that they should spend limited resources on broadband connections that they may not actually need or use, rather than address their real technological needs. The additional E-rate funding that would be necessary to meet these goals will come from imposing higher taxes (or so-called "user fees") on all Americans – a particularly regressive tax, paid by all users.

President Obama has declared that his ConnectED initiative would "within five years, connect 99 percent of America's students, through next-generation broadband [at speeds no less than 100Mbps and with a target of 1Gbps] to, and high-speed wireless within, their schools and libraries."³ Commissioner Rosenworcel has proposed providing every school with access to 100 Megabits per 1000 students by 2015; by 2020, every school should

³ ConnectED: President Obama's Plan for Connecting All Schools to the Digital Age 1 (June 6, 2013), http://www.whitehouse.gov/sites/default/files/docs/connected_fact_sheet.pdf.

have access to 1 Gigabit per 1000 students.⁴ The NPRM proposes “bandwidth targets” of “at least 100 Mbps per 1,000 students and staff (users) by the 2014-15 school year and at least 1 Gbps Internet access per 1,000 users by the 2017-18 school year”⁵ and “a minimum of 1 Gbps Internet connectivity by 2020” for libraries.⁶

The NPRM cites only two sources for these numbers:

- The State Educational Technology Directors Association (SETDA) report, “The Broadband Imperative: Recommendation to Address K-12 Educational Infrastructure Needs,” which the FCC cites as saying that, “in order to have sufficient broadband access for enhanced teaching and learning, K-12 schools will need Internet connections of at least 100 Mbps per 1,000 students and staff (users) by the 2014-15 school year and at least 1 Gbps Internet access per 1,000 users by the 2017-18 school year.”⁷
- An ex parte with the Gates Foundation asserting that the State Library of Kansas has developed a broadband capacity tool that “recommends that all libraries have a minimum of 1 Gbps Internet connectivity by 2020.”⁸

The “quantitative” support for SETDA’s recommendations boils down to a single chart:⁹

⁴ Remarks of Commissioner Jessica Rosenworcel, Washington Education Technology Policy Summit 4 (Apr. 11, 2013), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-320122A1.pdf.

⁵ Notice of Proposed Rulemaking, *In the Matter of Modernizing the E-rate Program for Schools and Libraries*, FCC 13-100, at ¶ 23 [hereinafter “NPRM”], available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2013/db0723/FCC-13-100A1.pdf.

⁶ *Id.* at ¶ 25.

⁷ *Id.* at ¶¶ 22-23; report available at <http://www.setda.org/web/guest/broadbandimperative>.

⁸ NPRM, at ¶ 25 & n.52.

⁹ SETDA Report at 21.

Activity	Recommended Download speeds
Email and Web Browsing	500 Kbps ⁴⁴
Download a 1 MB digital book in 5.3 seconds	1.5 Mbps ⁴⁵
Online Learning	250 Kbps ⁴⁶
HD-quality Video Streaming	4 Mbps ⁴⁷
Skype Group-Video Session, 7+ people	8 Mbps ⁴⁸
Download a 6144 MB Movie in 8 minutes	100 Mbps ⁴⁹
Current Generation Multiple Choice Assessments	64 Kbps/student ⁵⁰

* Averages are indicated for single users

The Report asserts that “The increasing demands of preparing all students for college and careers will require additional bandwidth in many, if not most, K-12 districts in this country over the next few years” – and then arrives, without analysis, at the recommendation of 100 Mbps per 1,000 students/staff by 2014-15 and 1 Gbps by 2017-18.¹⁰

This isn’t a sufficient basis for steering E-rate funds toward a particular speed level because neither the Report nor the NPRM:

- Assesses current or future *actual* broadband speed and bandwidth needs;
- Addresses the connection between broadband speed and desirable educational outcomes;
- Explains the trade-offs between spending more on funding wide area broadband connectivity at these levels and meeting other potential needs (like internal infrastructure improvements);
- Accounts for the cost effectiveness of this level of broadband in schools without a broader pedagogical plan to *make use of* high-speed broadband;
- Defends growing the size of the E-rate program, and thus raising taxes on all Americans; or
- Accounts for basic variations among school types, geographies, student bodies or the like.

Without any evidentiary support and without acknowledgement of these analytical lapses, there is no rational basis for basing distribution of E-rate funds on these arbitrary targets, and there is some reason to think that, even without the limitations suggested above, the

¹⁰ *Id.*

target may be too high. 100 Mbps/1000 students amounts to “an average of 100 Kbps per person or a download of 37.5 Mbytes for each one during a 50-minute period. Given that all students will not be on the Internet in every class for every day, that is a rather high estimate.”¹¹

Of course 100Mbps/1000 students *may* be appropriate. It may even be insufficient to meet future demand. But the FTC has cited no study, no data, no evidence to support those conclusions. We have no idea how schools are using these resources today, how they would use them if they were improved, nor what effect they would have on educational outcomes.

It’s unlikely that there’s one right mix for the entire country, that the FCC can design that mix today, or that it can expeditiously adjust the mix as technology changes. So rather than attempt to design the perfect digital connectivity program, the FCC should leave this up the administrators of schools and libraries themselves. Smarter subsidies would boost the buying power of the program’s recipients, rather than try to steer their choices towards what technocrats in Washington, D.C. think is best.

Improving E-rate requires rational goals

The FCC’s proposed speed targets are laudable goals, but what are they based on? Why not *2Gbps* per 1000 students in *2015*? Why is it better to spend limited E-rate funds reaching essentially arbitrary speed thresholds rather than on training teachers, subsidizing device purchases, promoting better digital, or any of the other things proposed by the Administration?

The E-rate modernization NPRM is slightly more agnostic about specific goals than the sources it cites. While beginning with the presumption that E-rate needs to be modernized – which certainly implicates broadband improvements of some sort – it refrains from pigeonholing “high-capacity broadband.” Instead the NPRM notes that “[w]e use the term ‘high-capacity broadband’ in this NPRM to describe the evolving level of connectivity schools and libraries need as they increasingly adopt new, innovative digital learning

¹¹ Harry Keller, *Is the LEAD Commission Right About Education Technology*, *Educ. Tech. & Change Journal* (Jun. 17, 2013), <http://etcjournal.com/2013/06/17/is-the-lead-commission-right-about-education-technology/>.

strategies.”¹² While perhaps difficult to implement, the reference to an “evolving level of connectivity” is appropriate.

Unfortunately, the NPRM goes on to cite the SETDA benchmarks, as if they are empirically supported, framing its request for comments around these proposed standards rather than asking first *how* the FCC should determine what standards to promote.

Thus the NPRM states:

We seek comment on adopting the SETDA target of ensuring that schools have 100 Mbps per 1,000 users increasing to 1 Gbps per 1,000 users. SETDA also recommends that a school within a district have Wide Area Network (WAN) connectivity to other schools within their district of at least 10 Gbps per 1,000 students and staff by 2017-2018. We also seek comment on adopting that target for WAN connectivity.

More specifically, we seek comment on whether the SETDA targets are appropriate for all schools, or whether we should set some other minimum levels of broadband speed necessary to meet our proposed goal, and what those levels should be.

Instead of asking whether there might be any basis for limited *deviation* from the SETDA standards at *some schools*, the FCC should be asking what basic standards are appropriate in the first place.

Ironically, the FCC knows this to be the case. But it is only in the section on measurement (not goals) that the NPRM finally asks, “Is there a way to measure how success in the classroom is affected by access to E-rate funding or services supported by E-rate?”¹³ One would think the FCC would want to know the answer to this *first*, before adopting goals that may or may not have any bearing on classroom success. And in the same paragraph the NPRM goes on to note that:

A 2006 study by Austan Goolsbee and Jonathan Guryan found that E-rate support substantially increased the investment of some public schools in Internet and communications technologies, **but did not find a statistically significant effect on**

¹² NPRM, at ¶ 1, n.2.

¹³ *Id.* at ¶ 40.

student test scores. Have more recent studies suggested otherwise? We also seek comment on whether the Commission should adopt educational-outcome measurements. Is it appropriate for the Commission to do so, given that educational outcomes are outside the agency's core competence? Are there any legal or jurisdictional issues with doing so?¹⁴

The FCC should not adopt the SETDA goals unless and until it has collected evidence that these goals are appropriate. That specific speeds may facilitate measurement and provide an easy metric is no reason to adopt them; *any* specific targets would provide these benefits.

Although the NPRM and other commenters point out that broadband speeds and bandwidth alone are not the only relevant technological issues in ensuring connectivity, there seems to be very little (if any) understanding of where the real technological needs of schools and libraries lie. We need to determine where, even in the technology infrastructure, resources are most needed. Before subsidizing significant spending on broadband access, we should ensure that institutions can take advantage of that access once they get it, and that there aren't more cost-effective means of improving connectivity. Among other things, we need to know:

- How many students at any given time will be using the Internet and for what purposes?
- What does typical usage look like and what does peak usage look like?
- How well are broadband usage limitations managed by the institution? Does it defer large data transfers until the middle of the night? Does it effectively manage network access?
- How much time must be spent actually downloading media?
- Can media be downloaded centrally and cached (*e.g.*, downloading the same textbook or educational video once)?
- How much does the institution's own LAN limit access? Is broadband access the most significant bottleneck?
- Does the institution use local servers and wired connections to maximize LAN efficiency?

¹⁴ *Id.* (emphasis added).

- How fast are the institution's wireless routers, and do they have enough routers to manage typical usage?

As one analyst suggested:

How about a different approach. Put those bandwidth-intensive media on the school's server, either by licensing them from vendors or by caching them for reuse. If these files are available locally, then the Internet (wide-area network) speeds can be much lower. The internal (local-area network) speeds must be quite high, but that is true even without local storage.¹⁵

And importantly, for purposes of ensuring institutions have a "21st Century broadband that supports digital learning," considerably more than WAN speed is essential, and many institutions would benefit most from support for the purchase of products and services like servers, firewalls, and video equipment that does not contribute directly to broadband speeds or bandwidth.¹⁶ An effective E-rate program should take account of these needs and incorporate a better understanding of their importance in its program design.

(Or perhaps the FCC don't need to know these things. Rather, program recipients are likely to know better than the FCC where resources are most needed, and thus the FCC should ask potential recipients to assess their own needs, and E-rate subsidies should be tied to their determinations.)

Commissioner Rosenworcel does recognize that data is important to "tracking our progress," but she has it backward. Instead of starting with the data to determine appropriate goals for the program, she recommends *starting* with unsupported goals and then collecting data as a tool for supporting her specific goals. Commissioner Rosenworcel notes:

¹⁵ Harry Keller, *Broadband for Schools: Do We Need Gbps Bandwidth?*, Educ. Tech. & Change Journal (Aug. 3, 2013), <http://etcjournal.com/2013/08/03/broadband-for-schools-do-we-need-gbps-bandwidth/>.

¹⁶ The Eligible Services List contemplates support for these, of course, but because Priority 2 products and services are lower priority, funding for these is much harder to come by. See Schools and Libraries Universal Service Support Mechanism Eligible Services List for Funding Year 2012, http://www.usac.org/_res/documents/sl/pdf/ESL_archive/EligibleServicesList-2012.pdf.

Here's what I propose. By the 2015 school year, every school should have access to 100 Megabits per 1000 students. Before the end of the decade, every school should have access to 1 Gigabit per 1000 students. Libraries, too, will need access on par with these capacity goals. I think Gigabit to anchor institutions like schools and libraries is the ticket to Gigabit cities, and the ticket to digital education and economic growth.

But to reach these capacity goals we also need more data collection. That is why I propose that we update our E-rate forms. Going forward, every E-rate application should collect information from applicants about their existing capacity and projected needs. Armed with clear data about what schools and libraries are using, we can track our progress. We can better understand what is needed and where. That way we can steer this program more effectively toward the capacity goals we establish.¹⁷

There can be little doubt that what that means is tracking progress in an effort to build support for more funding to reach specific goals rather than to influence which goals are appropriate in the first place.

Even the National Broadband Plan recognizes the importance of a "data first" approach:

Minimum service goals for schools and libraries should not be set based on speed and quality of service alone. Factors including the number of peak active users as well as the type and quantity of broadband services consumed should be factored into defining these minimum service goals.

Some schools and libraries need help making the transition to broadband. Data from the Universal Service Administrative Company (USAC) funding year 2009 show the E-rate program, received at least 200 requests for funding for dial-up access to the Internet. The FCC should investigate the reasons behind those funding requests. For example, the FCC should explore whether those schools and libraries lack access to the physical infrastructure necessary for broadband, whether it is simply

¹⁷ Remarks of Commissioner Jessica Rosenworcel, Washington Education Technology Policy Summit 4 (Apr. 11, 2013), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-320122A1.pdf.

an issue of funding and/or whether they lack the other resources, such as hardware, to make the best use of faster connectivity speeds.¹⁸

The E-rate program should follow this course and seek data first.

Lack of Data on Educational Impact

The FCC itself recognizes the lack of data on the question of education impact measurements. In paragraph 40 of the NPRM, as noted above, the FCC cites to a 2006 study by Austan Goolsbee and Jonathan Guryan, which found that, while E-rate support substantially increased the investment of some public schools in Internet and communications technologies, there was not a statistically significant effect on student test scores.¹⁹

Perhaps in recognition of the paucity of supportive data, the President's ConnectED proposal points to three anecdotes, including this one from Mooresville, North Carolina:

The Mooresville Graded School District distributes one device per student (grades 3-12) and uses predominantly digital curriculum content. All teachers are trained on how to integrate technology into their teaching. Since beginning the shift to greater use of technology, learning in Mooresville has changed... In the classroom, students now collaborate in small groups rather than listening to lectures. They are using individualized software that functions like a personal tutor, adapting to their pace of learning. Teachers receive immediate feedback on students' progress and can better direct their lessons and their teaching to meet each student's needs... There has been strong evidence of success in Mooresville. The district's graduation rate was 91 percent in 2011, up from 80 percent in 2008.²⁰

While the success of Mooresville is laudable, it is very difficult to determine how much of the improvement in graduation rates was due to technology investments. Graduation rates

¹⁸ *Chapter 11: Education*, National Broadband Plan: Connecting America, available at <http://www.broadband.gov/plan/11-education/#r11-15>.

¹⁹ Austan Goolsbee & Jonathan Guryan, *The Impact of Internet Subsidies in Public Schools*, 88 Rev. of Econ. & Statistics 336 (April 2005), available at <http://faculty.chicagobooth.edu/austan.goolsbee/research/erate.pdf>.

²⁰ ConnectED, *supra* note 3, at 4.

improved statewide from 70% to 83% between 2008 and 2013.²¹ Over the same time period, Mooresville’s graduation rates improved from 80% to 93% – almost perfectly in line with the statewide trend.²²

As one analysis of the “Mooresville Miracle” notes,

In addition to ditching pencils for keyboards, the district made dramatic adjustments to other central elements, including instruction, management, data-use, and professional development. What’s more, Mooresville Superintendent Mark Edwards vows that a critical aspect of the conversion lies in the team-oriented culture and shared vision he has been able to establish among faculty, staff, students, and the community. As Edwards explains, “If the focus is on the devices, it’s misunderstood.”²³

Considerably more than merely expanded bandwidth or increased speed is necessary to improve educational outcomes.

The point is this: the FCC should make sure to gather and analyze sufficient data on this question *before* specifying targets and increasing E-rate funding.

²¹ Cf. <http://accrpt.ncpublicschools.org/app/2008/cgr/> with <http://accrpt.ncpublicschools.org/app/2013/cgr/>.

²² Cf. <http://accrpt.ncpublicschools.org/app/2008/cgr/> with <http://accrpt.ncpublicschools.org/app/2013/cgr/>.

²³ Taryn Hochleitner, Obama’s ConnectED won’t guarantee Mooresville miracle for all, AEI (June 14, 2013), *available at* <http://www.aei-ideas.org/2013/06/obamas-connected-wont-guarantee-mooresville-miracle-for-all/>.

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September 19, 2014

Congressman Fred Upton, Chairman
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

Re: Universal Service Policy and the Role of the Federal Communications Commission, White Paper # 5.

The Telecommunications Association of Maine (TAM) is a trade association representing the interests of the Incumbent Local Exchange Carriers (ILECs) in Maine.¹ TAM appreciates the opportunity to provide comments on these important issues.²

1. How Congress should define the goals of the USF and whether universal service principles specified in federal statute should be revised

The current goals of the Universal Service Fund (USF) are clear: to ensure that all Americans have affordable access to comparable service at comparable rates; to provide support for advanced communications for schools and libraries; to assist the provisioning of tele-health services; and to provide monthly discounts for low-income individuals. What is unclear is why these should change. All of these telecommunications services rely on an evolving network that is increasingly focused on establishing sufficient broadband as a basis for delivering universal service. It may be possible to adjust the manner in which USF is used to meet forward looking needs, but the core issue which is rarely spoken about is whether we should erect a social and economic dividing line between urban and rural America. Make no mistake, reducing support for comparable service at comparable rates all but guarantees lower service at higher rates for rural Americans. Competition goes where there is demand, and the number of households per

¹ TAM's members are FairPoint Communications of Northern New England, Northland Telephone Company, China Telephone Company, Maine Telephone Company, Standish Telephone Company, Sidney Telephone Company, Cobboosecontee Telephone Company, Community Service Telephone Company, Hampden Telephone Company, Hartland & St. Albans Telephone Company, Somerset Telephone Company, The Islands Telephone Company, Warren Telephone Company, Oxford Telephone Company, Oxford West Telephone Company, Unitel Inc., Mid-Maine Telecom, Saco River Telegraph & Telephone Company, The Pine Tree Telephone & Telegraph Company, Lincolnville Networks and Tidewater Telecom.

² TAM's position is the position of the Board of Directors as a whole and should not be ascribed to any individual company or companies. Individual companies are free to take their own positions as they deem appropriate, whether such position is in accordance with or in opposition to the position taken by TAM.

mile in urban areas justifies not just one provider, but multiple providers who can compete for customers and have sufficient customer density to allow for higher bandwidth at lower costs than rural areas. In rural America, the households passed are frequently so sparse as to make no economic sense for a single provider to operate, much less multiple competitors. Prior to the adoption of the Telecommunications Act of 1996 (TelAct), companies were granted a monopoly for providing service on the condition that they provide service even in those areas where it would be uneconomic to do so. To make service affordable in high-cost areas, companies were permitted to utilize higher rates in low cost areas to provide lower rates in high-cost areas of their service territories. With the adoption of the TelAct, Congress attempted to promote competition, but they recognized that eliminating the monopoly structure would make it impossible for companies to continue to use revenues from low-cost areas to offset costs in high-cost areas, which would lead to lower investment, or indeed elimination of investment, in high-cost areas. This lack of investment would result in higher rates and reduced service for rural Americans.

To offset that potential outcome, Congress adopted the Universal Service Fund to expressly ensure that all Americans would continue to have comparable service at comparable rates by establishing sufficient predictable support to allow for ongoing investment in high-cost areas. In essence, immediately prior to the adoption of the TelAct, every telecommunications customer in a low-cost area contributed to ensure comparable service at comparable rates for customers in high-cost areas. Immediately following the adoption of the TelAct, every telecommunications customer in a low-cost area contributed to ensure comparable service at comparable rates for customers in high-cost areas. The only difference is that before the TelAct all of those low-cost customers were customers of a single provider, whereas after the TelAct the low-cost customers were customers of various service providers. High-cost support has never been a benefit to a company. It has always been used for the express and sole purpose of providing comparable services at comparable rates to high-cost customers. Indeed, every single year companies and State Commissions have certified to the FCC that this is all that these funds have been used for. High-cost USF has always strictly been a benefit for rural citizens. The real question to be asked regarding USF is which citizens should have access to affordable advanced telecommunications services. If the answer is "all citizens", then the USF construct must be maintained. If the answer is "those citizens who are conveniently located" then USF can

certainly be adjusted, but it must be done in an explicit and deliberate manner with no illusions about the fact that materially altering USF would be a gift to competitive corporations at the direct and immediate expense of rural Americans. TAM believes the focus should be on ensuring comparable services for all American consumers, not providing windfalls to national companies. The only way to provide a Universal Service system that benefits consumers is through regulatory oversight of a network that reaches all customers, rural and urban alike.

2. How federal policy should address the existence of multiple privately funded networks in many parts of the country that currently receive support

As a preliminary matter, all competitive networks are privately funded networks, and all competitive networks have been supported by the provisions of the TelAct. For example, cable companies were granted unique access at reduced rates for pole attachments, a condition which remains in some States including Maine. This has provided a financial subsidy for over a decade and yet we have yet to hear, for example Time Warner in Maine, acknowledge this financial assistance as it holds itself up as an "unsubsidized competitor". Similarly, for wireless service a brand new category of access was created when wireless companies were granted the ability to treat all traffic as local traffic and avoid costs associated with interconnecting with and transporting service over the private property of those companies who built and maintain the public switched telephone network. It is a common, but fundamentally false, assertion that competition in the telecommunications market somehow sprung whole and fully formed into existence without the help or benefit of federal policies and regulations that provided benefits, financial and otherwise, to spur competition forward. In reality, there is no such thing as an unsubsidized competitor in the telecommunications market, it is simply the form of the subsidy that has varied.

Competition is good and beneficial in those areas that can support multiple providers due to high customer densities. It can promote innovation and introduce new products and services that over time become standard as people grow to use and rely upon them. All of this is beneficial for most but not all customers where competition works. However, competition does not alter the realities of high-cost areas. When competition exists in rural areas it tends to cluster in the center of town while avoiding those higher cost of service areas outside of the center of the community. While competition exists in the center of town, without USF support the customers

on the periphery would be left behind. The reality is that the existence of competition should be beneficial to all Americans. But if support is limited based on whether competitors happen to exist in some portion of a carrier's service territory, then the benefits of competition will be limited to those in urban areas and, to a lesser extent, customers in the center of town in rural areas. There is a false premise at work, that competition and high cost support cannot or should not coexist. As noted above, the TelAct expressly created a structure where competition and support for high cost areas would coexist. Changing this structure now would cause direct and immediate harm to rural Americans, especially those living outside the center of their communities. If this is the decision of Congress, it will be important for Congress to explain to these Americans why they are less important than those citizens living in urban areas of the Nation.

3. What is the appropriate role of the states and state commissions with respect to universal service policy

As the FCC has recently noted, Universal Service is a shared State and Federal obligation. This is especially true as the services within "universal service" expand to include broadband. The difficulty with establishing sweeping federal programs with little or no State jurisdiction, as has been done to date with broadband, is that one size simply does not fit all. While some general concepts may be developed at a federal level, the specific oversight must include State action and, to some extent, jurisdiction if a true goal of universal broadband service is desired. This is especially true with regard to rural deployment. At a federal level, general concepts have been developed about how to promote "rural" deployment as if all "rural" areas are the same. This could not be further from the truth. As an example, both Maine and Wyoming are very rural States, and yet their characteristics are quite different. The majority of Wyoming sits more than a mile above sea level and the terrain is dominated by plains and mountains. By contrast, Maine is on the coast, with many island communities, and rolling hills full of forests and valleys. So while both Maine and Wyoming are rural, the solutions for how to deploy services in Wyoming and Maine are substantially different. Attempting to craft a single federal solution based on the premise that the rural areas of Wyoming and Maine are interchangeable and face the same issues regarding deployment of services in high cost areas simply cannot succeed.

A logical way to address this issue is to vest States with greater jurisdictional authority over the implementation of Universal Service, including universal deployment of broadband service, whether wireline or wireless. At a minimum this should include the means to ensure that goals set, whether at the Federal or State level, are being met through direct regulatory oversight authority over all broadband providers. State Commissions are in the best position to determine what programs will be most effective in deployment within their State. Regulatory oversight will also assist in consumer protection by allowing customers with billing or service issues to seek local redress rather than having to file a complaint with the FCC and hope for a timely resolution.

National providers have complained that 50 different regulatory systems would be too complex. This argument just does not pass the red face test. Cable companies routinely manage and implement literally hundreds of different obligations with the individual communities with whom they have franchise agreements. If it is so difficult to manage multiple systems, why have cable providers not sought to have statewide franchising in every State where they provide service? The reality is that, in this day and age, managing multiple regulatory obligations is neither burdensome nor inappropriate. Maintaining sole federal jurisdiction benefits the companies, whereas utilizing State jurisdiction benefits the customers. TAM believes that the interests of the customers in having consumer protection and State-specific oversight of broadband is more important than ease of use for national companies.

4. What is the appropriate role of the Federal-State Joint Board on Universal Service as well as other related joint boards

Universal Service needs to be implemented through the joint actions of States and the FCC. The logical place to develop standards for benchmark speeds and pricing would be at the Federal-State Joint Board. In this way, there would be development of meaningful standards for rural broadband speeds, currently lacking in the National Broadband Plan, as well as meaningful benchmarks for pricing of broadband services, also entirely absent from the National Broadband Plan. The Joint Board provides the ideal environment for working out an appropriate balance for the needs of developing forward looking standards while staying focused on the realities of implementation across a wide array of geographies and population densities.

In addition to broadband, it is important to develop processes for video, as developed for voice and data, to promote competition where such competition is viable. Telecommunications is the sending of information, whether voice video or data, and as such steps should be taken to ensure that all telecommunications are provided universally and, where appropriate, in a competitive manner. The TelAct did a good job of promoting competition in voice and data but failed with regard to video. This can be remedied, however, using the same processes that were developed for voice service, namely the unbundling of network elements (UNEs) to be provided at total element long-range incremental cost (TELRIC) prices. Currently there is a competitive bottleneck because content providers are reluctant to negotiate on an equal basis with companies with 5,000 access lines as they do with companies with an excess of 1 million subscribers. This problem is made worse by the secretive nature of the deals that prevent a provider from seeking comparable deals with content providers. The best way to address this is to use the UNE model and require video providers to allow collocation at a head end where a competitive video provider may use the video provider's existing infrastructure to receive video signals. The video provider would be required to pass through video signals to the competitor at the same price as if they had added a new subscriber of their own under their existing agreement with the content providers, paying the content providers according to their agreements, and then the competitive provider would pay the dominant video provider the amount they pay to the content providers plus a TELRIC additive. The Federal-State Joint Board would be in the best position to establish collocation rates and TELRIC pricing for video content. In this way, there could be true video competition and the costs for providing service would focus more appropriately on the costs of providing a broadband pipe capable of carrying voice, video and data to customers. Indeed, this could have the effect of increasing rural take rates for broadband, thereby driving down costs leading to better pricing and increased speed without the need for increased federal subsidies. By implementing a video UNE framework, there would be increased competition, growth of broadband services, and a reduced need for financial support to achieve universal broadband service.

5. Are other federal programs that support build-out, like the Rural Utility Service (RUS), still necessary

Programs such as RUS will continue to be important as States and the FCC wrestle with how to fund the necessary broadband build-out to ensure universal service. Programs such as those offered through RUS, especially loan programs, can bring synergies to the process that will permit companies to develop long term investment programs with low interest rates to keep costs low while simultaneously reducing reliance on pure grants. At the same time, there may be times when a grant to support one time build-out of an internet backbone or middle mile facility would be appropriate. Having programs such as RUS will provide the maximum flexibility to promote universal broadband deployment.

6. How can Congress ensure that USF is sufficiently funded without growing the Fund in a way that is fiscally irresponsible?

While it has been common to blame high-cost support for growth of the USF over the past several years, the reality is that high-cost support has been level. Growth in the USF has occurred as a result of expanded Competitive ETC support and Lifeline support. According to the FCC's 2013 Universal Service Monitoring Report, in 2006 the high cost disbursements made up \$4.096 billion of the fund whereas in 2012 the high cost disbursements made up \$4.147 billion of the fund³. In the same time period Lifeline support nearly tripled, going from \$820 million to \$2.189 billion. Similarly E-Rate support for schools and libraries went from \$1.669 billion in 2006 to \$2.218 billion in 2012. So while high-cost support resulted in an increase of \$50 million in that time period, Lifeline and E-Rate drove \$2 billion in increases. Leaving aside the anecdotes and focusing on the facts reveal that the growth in the fund has not come from high-cost support. If anything has increased in a fiscally irresponsible manner, it has been the growth of Lifeline support through the granting of support to disposable-phone providers who offer pre-paid Lifeline for "free". The FCC has already taken steps to ensure that this trend in Lifeline is curtailed. The premise that USF is somehow ballooning out of control is quite simply false.

7. Whether all the funds and mechanisms of the USF are still necessary in the modern communications marketplace

The underlying regulatory structure of the funds and mechanisms of the USF program remain necessary and relevant, especially if there is a true desire to achieve universal and

³ Universal Service Monitoring Report 2013 (Data through October 2013), at table 1.12.

affordable broadband service throughout the Nation, although reasonable adjustments to the mechanisms to promote a broadband infrastructure may be appropriate. Without these programs, there would be a rapid separation between the services available and the prices for such services for both urban and rural customers. No matter how modern the marketplace, the realities of high cost areas with low population densities persist. There are, however, ways to mitigate the costs. As noted above implementing video UNEs would further allow market demands and private investment to drive broadband growth in rural America and lessen the need for high cost support.

8. Are there ways to better manage USF through the use of block grants, consumer vouchers, or reverse auctions?

The current method of managing USF is more effective than block grants, vouchers or reverse auctions. While block grants, vouchers and auctions look good on paper, they fail to address the reality that telecommunications relies on networks, not single points of connection. Moreover, these networks depend upon each other and taking away one network may well limit the usefulness of the remaining networks. This is especially true of wireless service. Recently, the Cellular Telecommunications Industry Association (CTIA), a trade group representing wireless carriers, submitted a paper to the FCC that clearly demonstrated that wireless networks are simply not capable of having reliable service, especially with regard to broadband, due to the myriad of external factors that limit and degrade the usefulness of wireless service.⁴ Specifically, the CTIA Paper stated that:

"Not only is the bandwidth of the wireless channel severely constrained compared to wireline channels, the reliability of the wireless channel is well below that of a wireline channel. The reliability issue is due to a number of factors, such as blockage of the radio signal (called shadowing), echoes or multipath of the signal, thermal noise, and, more importantly, interference. These impairments to the channel create substantial additional complexity and variability. Planning and operating a wireless deployment to ensure Quality of Service (QoS) and coverage is extraordinarily difficult because these impairments are random and unpredictable.

Interference is often the most important of these impairments, and, by its very nature, is constantly changing between and within cells. Interference occurs when multiple signals share the same spectrum. These signals are typically associated

⁴ *Net Neutrality and Technical Challenges of Mobile Broadband Networks*, Dr. Jeffrey H. Reed and Dr. Nishith D. Tripathi, dated September 4, 2012. (CTIA Paper)

with the same service provider but are sometimes due to another service provider using the same or adjacent spectrum bands. Interference limits capacity in a wireless system on a dynamic basis, varying by location and from one millisecond to the next, and this problem has no counterpart in wireline systems."⁵

The CTIA Paper also stated that:

"Additionally, the wireline network is very consistent with respect to capacity capabilities of the channel over time (no fading) and space (low loss per distance of fiber). The wireline network engineer knows precisely how much bandwidth is available in a single fiber optic strand and (other than losses over distance) will have a near-constant understanding of the performance of the transport layer. In contrast, wireless networks are faced with ever-changing radio environments. Temporal issues such as multipath, clutter, blockage, channel fading, and extraneous interference will result in changes in the performance of the network and the quality of service experienced by subscribers. Also, the quality of the radio channel necessarily degrades rapidly as a function of distance from the serving cell."⁶

A wireline network is critical for the deployment of broadband service on a universal basis. To achieve universal service there needs to be a ubiquitous network. The FCC has recently realized the need for sustained support rather than simple block grants when it issued the Rural Broadband Experiments Order.⁷ Specifically, the FCC rejected one time grants in favor of a 10 year support mechanism with goals and progress deadlines that can be overseen and monitored.⁸ This sort of regulatory oversight with long range planning is the only way to ensure that all Americans have access to affordable broadband service on a going-forward basis.

CONCLUSION

Once again, TAM appreciates the opportunity to comment on these issues. It is critical for the economic future of rural America that anecdotes not trump facts in these matters. The facts are that high cost support has not been a driving force in increasing the size of the USF, and instead high cost support has made it possible for all Americans to reap the benefits of competition in the telecommunications market. Far from being mutually exclusive, USF and competition are complementary programs that, when used together, can bring out the best in

⁵ *Id.*, at 18.

⁶ *Id.*, at 17

⁷ *In the Matter of Connect America Fund*, WC Docket No. 10-90, FCC 14-98, **Report and Order and Further Notice of Proposed Rulemaking**, (Rel. July 14, 2014) (Rural Broadband Experiments Order)

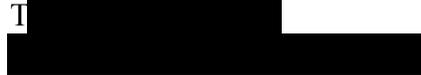
⁸ *Id.*, at ¶74

American innovation and bring its advantages to every American in a way that will help to build jobs and improve quality of living for everyone in both urban and rural areas of this Nation. We would urge Congress not to abandon USF, but instead to strengthen it to recognize and support the vital public utility nature of broadband.



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**Telecommunication Industry Association Comments regarding House Energy & Commerce
Committee's Questions for Stakeholder Comment on Universal Service
September 19, 2014**

- 1. How should Congress define the goals of the Universal Service Fund? Should Congress alter or eliminate any of the six statutory principles, codify either of the principles adopted by the FCC, or add any new principles in response to changes in technology and consumer behavior?*

Beyond assuring a competitive marketplace, the FCC has an important public interest role to play in ensuring that all Americans have access to broadband.

These could include, for example:

- Universal high speed broadband access to homes, businesses, public safety, libraries, and schools, without undue subsidization;
- Availability of broadband services in public spaces such as roadways or parks, and for public purposes;
- Reliable emergency communications for services such as 9-1-1, and for public safety responders, the realization of the full potential of an interoperable nationwide public safety broadband network;
- Reasonable telecommunications accessibility for those with disabilities.

TIA has strongly supported the Commission's creation of a broadband-focused Connect America Fund ("CAF") to replace the existing USF high-cost fund and the implicit subsidies that have plagued the inter-carrier compensation regime. TIA supports implementation of these changes in a technology-agnostic, competitively neutral manner. To maximize efficient broadband deployment, we urge that any coverage or service requirements (including voice service requirements) are technology-neutral, and flexible enough to address unique circumstances.

- 2. Universal service was created to fund buildout in areas incapable of economically supporting network investment. How should our policies address the existence of multiple privately funded networks in many parts of the country that currently receive support?*

As this universal service transition proceeds, maintaining marketplace certainty will be critical to attracting the necessary investment to make this transition a success.

TIA also fully supports the allocation of dedicated and recurring funding to the support of mobile broadband. By incorporating support of this service, TIA believes that the FCC will ensure maximum service to consumers.

The market for broadband is competitive and becoming more so. Most consumers now have access to various modes of broadband service delivery. Going forward, a unified light-touch model for

regulation should be focused on ensuring universal, reliable, and affordable access to broadband – both by people and by devices themselves – while ensuring that advanced value-added services can continue to facilitate innovation as they have done under the current light-touch model.

3. What is the appropriate role of states and state commissions with respect to universal service policy?

4. What is the appropriate role of the Federal-State Joint Board on Universal Service in a broadband, IP-enabled, largely interstate world? What is the appropriate role of related joint boards, such as the Federal-State Joint Board on Separations or the Federal-State Conference on Advanced Services?

Consolidated answer to #3 & #4

The nation's communications network is undergoing a fundamental change as the “public switched telephone network” (PSTN) transitions toward becoming a platform relying on packet technology using the Internet Protocol (IP) suite of protocols. Although this conversion of the PSTN to an “all-IP” network is inevitable, the transition's timing depends on the resolution of important policy questions. This technology transition changes the nature of telecommunications markets, and an evolution in the role and function of state oversight is appropriate. For example, since IP traffic is not bound by the distance constraints that exist for TDM, the transition to Voice over Internet Protocol (VoIP) ends voice as a localized market.

However, given the ever increasing importance of communications broadly, the important public interest considerations can be an appropriate area for the engagement of state regulators and the Federal-State Joint Board.

5. The Universal Service Fund is one of several federal programs that support build-out of communications facilities. Are current programs at other federal agencies, like the National Telecommunications and Information Administration (which oversaw the Broadband Technology Opportunities Program) or the Rural Utility Service (which oversees lending programs and oversaw the Broadband Initiatives Program) necessary?

TIA advocates taking an "all-of the-above" approach to broadband investment. While private investment has produced broadband access for most Americans, many rural and hard-to-serve areas would not have access without the benefit of targeted intervention. Over the past five years, \$7.2 billion in support provided the Department of Commerce's National Telecommunications and Information Administration (NTIA) and the U.S. Department of Agriculture's Rural Utilities Service (RUS) has expanded access to broadband services in the United States. Of those funds, the Act provided \$4.7 billion to NTIA to administer the Broadband Technology Opportunity Program (BTOP) in support of the deployment of broadband infrastructure, enhancing and expanding public computer centers, encouraging sustainable adoption of broadband service, and developing and maintaining a nationwide public map of broadband service capability and availability. Without this support, many communities would have remained without broadband.

6. How can we ensure that the Universal Service Fund is sufficiently funded to meet its stated goals without growing the fund beyond fiscally responsible levels of spending?

7. Are all of the funds and mechanisms of the current Universal Service Fund necessary in the modern communications marketplace?

8. In lieu of the current support mechanisms, could any of the programs be better managed or made more efficient by conversion to:

- a. A state block grant program;*
- b. A consumer-focused voucher program;*
- c. A technology-neutral reverse auction; or,*
- d. Any other mechanism.*

TIA has strongly supported the Commission's efforts to cut the "Gordian Knot" of USF –ICC reform. TIA believes that the FCC's success in resolving these USF-ICC policy challenges remains in the interest of all telecommunications users.

- First, TIA reiterates that maximum flexibility in the operation of the new fund is critical to reaching its maximum potential.
- Second, TIA believes that technology-neutral principles should be reflected in the reform, particularly in the public interest obligations of providers.
- Third, reporting burdens on recipients should be minimized in order to promote participation in the program.

An important contribution of the FCC's Connect America Fund reforms has been the introduction of competition among potential providers for universal service support. TIA believes that implementation of these changes continue in a manner that does not prefer particular technologies or certain competitors over others. Allowing for an auction process among potential competitive supported providers should drive more efficient service delivery.

TIA stresses that for these reforms to take root, maintaining marketplace certainty will be critical to attracting the necessary investment to make this transition a success. The prospect of a significant modification to this new market-based CAF model risks discouraging potential new entrants to this new market.

TIA supports continued critical funding for anchor institutions. TIA reiterates its support for continued E-Rate and Rural Health Care programs. Both have funded broadband infrastructure supporting important anchor institutions such as libraries, schools, and hospitals. It remains critical that funding for E-Rate and the Rural Health Care programs remain dedicated to these important programs.

As e-health applications such as telemedicine become more widely adopted, access to robust broadband is becoming a more critical component of healthcare delivery. For example, not only would many low-income consumers would benefit from better access to broadband relevant services such as for home-based tele-health applications, remote monitoring can be more cost effective than institutional care. However existing rural health subsidies target only institutional facilities. Consequently, appropriate consideration is necessary for the opportunities in integrating broadband telecommunications costs with the delivery of public services such as e-health to low-income consumers.

COMMENTS OF TRACFONE WIRELESS, INC. ON #COMMUNICATIONS ACT UPDATE WHITE PAPER ON UNIVERSAL SERVICE

In its recent white paper on Universal Service Policy and the Role of the Federal Communications Commission, the House Energy and Commerce Committee invites comments on a series of questions regarding universal service as part of its efforts to update the Communications Act. TracFone Wireless, Inc. is a company profoundly impacted by the FCC's universal service policy – both as a contributor to the Universal Service Fund and as a recipient of Universal Service support as the nation's leading provider of Lifeline service supported by the Universal Service Fund (USF). The white paper asks key questions regarding universal service goals and policies. TracFone will focus on several of those questions.

3. What is the appropriate role of states and state commissions with respect to universal service policy?

The role of states and state commissions is to implement national universal service policy, to take actions consistent with national policy and not to take actions which undermine national policy. The primacy of the federal government in establishing universal service policy is codified at Section 254(f) of the Communications Act which states that “A State may adopt regulations **not inconsistent with the Commission's rules** to preserve and advance universal service.” (emphasis added). Notwithstanding that explicit Congressional directive, TracFone has encountered too many instances of states taking actions which undermine federal universal service policy and in some cases, even place service providers in the untenable position of being unable to comply with federal and state requirements. Although there are many such examples, a few will be provided here for illustrative purposes only.

- **State Taxation of USF Lifeline Benefits**

Several states, including, *e.g.*, Alabama and Indiana, have enacted laws or interpreted state laws so as to require that recipients of Lifeline service supported solely by the USF and provided to qualified low-income households at no charge or providers of such

service to pay state taxes on those support amounts in the form of 911 fees. Imposition of a state 911 tax on a federal USF benefit constitutes a state tax on a federal benefit and reduces the amount of the Lifeline benefit from \$9.25 per month codified in the FCC's rules to an amount reduced by the tax. Another state – Oklahoma – has even proposed to require recipients of federal USF support to contribute to a state universal service fund based on the amount of federal USF support received. In other words, the value of the federal universal service benefit would be reduced as recipients would be taxed on those benefits to contribute to a state fund.

- **Rate Regulation of USF—Supported CMRS Services**

Section 332(c)(3)(A) prohibits states from regulating entry or rates charged by commercial mobile service providers. In direct violation of that unqualified preemption of state regulation of CMRS, one state – Georgia – attempted to impose on CMRS providers offering Lifeline service a mandatory minimum rate of \$5.00 per month. The Georgia Public Service Commission attempted to so regulate CMRS rates in a misguided effort to prevent fraud in connection with the Lifeline program. It did so notwithstanding the absence of evidence of any correlation between no charge Lifeline service and program fraud. That rule was later enjoined by the United States District Court for the Northern District of Georgia. CTIA – The Wireless Association, et al v. Tim G. Echols, et al, CA No. 1:13-CV-399-RWS. Following the District Court's injunction, the Georgia Public Service Commission wisely rescinded the rule. There are no assurances, however, that other states may not attempt to impose similar rate regulations on USF-supported services in violation of 47 U.S.C. § 332(c)(3)(A). In fact, the Oklahoma Corporation Commission has recently proposed to adopt a \$3.00 minimum rate rule on wireless Lifeline service.

6. How can we ensure that the Universal Service Fund is sufficiently funded to meet its stated goals without growing the fund beyond fiscally responsible levels of spending?

The level of funding necessary to support the USF will depend on what services the USF is to support. Historically, most USF resources have been used to subsidize telecommunications networks and services through the high cost program, and the low income program as well as the schools and libraries and rural health care programs. There are many sound public policy reasons why USF support should be available to subsidize broadband deployment and to expand the low income program to subsidize affordable broadband service for low-income households. However, it must be recognized that expansion of the programs and services funded by the USF will necessarily require an increase in overall funding levels. Neither Congress nor the FCC

should sacrifice important and beneficial USF-supported programs in order to prevent fund growth. USF resources should be spent prudently. Responsible and targeted efforts to identify and prevent waste of USF resources should be undertaken as the FCC did in 2012 in adopting its Lifeline reform rules.

As the nation's largest provider of Lifeline service, TracFone has been a leader in proposing and advocating reforms which reduce waste, fraud and abuse of USF resources. For example, TracFone proposals to establish a 60 day de-enrollment for non-usage policy, to require obtainment of customer date of birth and Social Security Number (last 4 digits) information, to require annual verification of the eligibility of all enrolled Lifeline customers (rather than a "statistically-valid random sample" of customers, and to eliminate the wasteful and unnecessary Link Up program all were adopted by the FCC). Other TracFone proposals to further reduce Lifeline fraud remain pending before the FCC. These include its May 2012 proposal to require that Lifeline providers retain and make available for audit copies of Lifeline eligibility documentation provided to them by applicants, and its May 2013 proposal to prohibit in-person Lifeline handset distribution – a practice which has created opportunities for program fraud and besmirched the perception of the program.

One way to ensure sufficient funding to support all programs, including broadband support, is to broaden the base of contributors. Historically, only revenues derived from interstate (and international) telecommunications services were subject to USF contribution obligations. Revenues from services characterized as "information services" were not subject to USF assessment. This made sense since the Universal Service Fund only supported telecommunications services. If the USF is to fund broadband deployment and subsidized broadband service for low-income households (*i.e.*, if the fund is to subsidize information

services), then it would be appropriate that revenues derived from providing such information services also be subject to USF assessment as necessary to ensure an adequate funding base.

Recently, the FCC directed the Federal-State Joint Board on Universal Service to propose reforms to the USF contribution methodology. TracFone looks forward to working with the Joint Board and its staff as it considers appropriate changes to USF funding. During that process, it will be encouraging the Joint Board to adhere to the statutory principles of non-discrimination and competitive neutrality, and to recommending changes which are fair to all USF contributors and all industry segments, including the prepaid wireless segment. USF contributors who collect their charges by invoicing customers have an available mechanism to recover their USF contributions from their customers, and virtually all such carriers do so. With prepaid services, there is no opportunity to recover carriers' USF contributions from their consumers through billed surcharges. The Committee, the Joint Board and the FCC should remain mindful of that circumstance and reform of the USF contribution process should avoid discriminating against such providers or impeding their ability to offer services to consumers.

USF White Paper Response
U.S. Cellular
September 19, 2014

1. How should Congress define the goals of the Universal Service Fund? Should Congress alter or eliminate any of the six statutory principles, codify either of the principles adopted by the FCC, or add any new principles in response to changes in technology and consumer behavior?

The basic goals of universal service, as embodied in the core principles, are generally well-defined in the current statute. Of critical importance is the principle that : “Consumers in all corners of the country, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.” This principle much be retained.

The universal service statute was created at a time when circuit switched telephony was the dominant means of communication and the Internet was in its infancy. Congress anticipated the Internet, but did not anticipate the development of all-IP networks. As a result the 96 Act contained regulatory distinctions between telecommunications services (regulated pursuant to Title II) and largely unregulated information services that are quickly becoming anachronistic. As IP networks have ascended, the Internet is now becoming the dominant means of communication and circuit switched telephone networks providing basic voice telephony are headed for the history books. The FCC is conducting proceedings to manage the “IP Transition, which will be largely complete in the near future.” See, FCC Docket No. 12-353 and 13-5.

The terms, “telecommunications services” and “information services” present increasing challenges for regulators. The FCC’s classification of broadband as a largely unregulated service, and then its attempts to regulate that service, have created enormous legal overhang for the industry. Eliminating this regulatory distinction and instead embracing a single term with a clear definition and jurisdictional direction, will aid the FCC, state regulators, and market participants.

Two examples: First, Congress stated that universal service contributions must be made on based on interstate telecommunications services and the FCC collects based on a percentage of interstate telecommunications revenues. With the rise in information services, the burden on those still using telecommunications services has increased significantly, while those using functionally identical service (e.g., voice) through an information service no longer contribute.

Second, Congress set up Title II of the Act to govern common carriers providing telecommunications services. The entire universal service mechanism is contained within Title II. The FCC declared that the provision of information services is not subject to Title II, but has attempted to impose common carrier regulation on information service providers that participate in the universal service mechanism. The courts have issued contradictory decisions about the FCC’s authority, and the latest controversy surrounds the FCC’s authority to regulate information services using “Section 706” authority, a provision that is not even contained in the federal telecommunications act.

We encourage the Committee to consider the use of a unified approach) defined broadly to encompass all communications of any nature, would be helpful in determining appropriate Federal policy.

The idea that support is for consumers, not individual classes of carriers or technologies, should be clarified and strengthened.

The FCC's principle that support mechanisms should be competitively neutral should be codified and made mandatory: All support mechanisms must be competitively and technologically neutral, so that no class of carrier or technology is disadvantaged.

2. Universal service was created to fund buildout in areas incapable of economically supporting network investment. How should our policies address the existence of multiple privately funded networks in many parts of the country that currently receive support?

U.S. Cellular notes that Congress directed the FCC to “preserve and advance” universal service. U.S. Cellular has always interpreted the word “preserve” to include the concept of maintaining high-quality services once they are constructed, including the provision of support for ongoing operating expenditures in areas that would not otherwise support services on a stand-alone basis.

The 1996 Act was uniformly a pro-competitive statute. By allowing the FCC and states to designate multiple ETCs, and by making support for consumers and not for individual classes of carrier, Congress set up a mechanism that had a dual purpose: (1) to preserve and advance universal service and (2) to promote competition. Before 1996, only ILECs had access to universal service support. The new statute directed the FCC to remove all implicit subsidies from ILEC rates (e.g., access charges) and move them into an explicit universal service fund, so that competitors could access explicit subsidies and enter rural markets on a more even footing.

Unfortunately, the statute did not provide the FCC with sufficient direction, and some began to define universal service as *only* for the provision of funds to build a single network. The 2011 CAF Order served to cement the incumbent ILECs into place by greatly limiting the opportunity for competitors to access Connect America Fund (“CAF”) support, some 15 years after the Act’s adoption.

U.S. Cellular’s view is that rural consumers deserve access to similar choices in services. They should not be served by one provider. Support mechanisms should be structured to permit competitive entry in as many places as possible. Only with the benefits of competition will citizens in rural America enjoy the same level of services and benefits as those available to citizens in urban America.

One way to do this is to restructure the entire high cost program to be a voucher system. The FCC would be directed to identify high-cost areas with some reasonable granularity and then determine the amount of “per person” support would be provided in such area for a basic connection to the network, as defined by the FCC. The FCC could use a cost model, as they have done in the past, to define the required service level and identify the highest cost areas that require support. Alternatively, they could establish support through an auction mechanism, whereby market participants bid down to a per-person level that would be available to any participating carrier.

Under this mechanism, any carrier investing in network facilities could compete for the customer. Consumers would be given a credit, which could be applied to any provider’s invoice. The amount of support in any area would be fixed, and all carriers would be treated as carriers of last resort, i.e., having to respond to all reasonable requests for service. The amount of support would be set at a level sufficient to enable regulators to require a recipient to serve all locations within a supported area.

This mechanism would have the advantage of promoting efficient and competitive entry by those with lower cost structures, better customer service, or new technologies that consumers prefer

3. What is the appropriate role of states and state commissions with respect to universal service policy?

Today, the FCC and a number of states have high cost universal service funds. Many states do not, while others unfortunately limit support to so-called “access replacement” mechanism that are manifestly contrary to the 1996 Act. Such mechanisms are not competitively neutral or portable to competing carriers, and do nothing more than limit competition by subsidizing rates to artificially low levels.

If the federal government intends to shoulder all, or nearly all, of the universal service burden, then it should preempt state universal service mechanisms.

Alternatively, if universal service is to be a cooperative federal and state responsibility, then Congress should strengthen Section 253, which specifies that all state universal service mechanisms should be competitively neutral. Congress should require state universal service funds to be made available to consumers, not to companies, so that states do not stifle competitive entry or confer artificial subsidies to incumbents.

4. What is the appropriate role of the Federal-State Joint Board on Universal Service in a broadband, IP-enabled, largely interstate world? What is the appropriate role of related joint boards, such as the Federal-State Joint Board on Separations or the Federal-State Conference on Advanced Services?

Over many years, the Joint Board has provided valuable guidance on universal service. To the extent that a Communications act rewrite preempts state law, the Joint Board's role would necessarily diminish. Should Congress retain a federal-state partnership for providing universal service, for example, encouraging individual states to create universal service programs as needed to supplement the FCC's work, then a Joint Board retains relevance, as a coordinated effort would be needed.

To the extent the Joint Board is retained, Congress should encourage stakeholder representatives to have a more active role in the process, to develop a more fulsome record for the Joint Board's consideration.

5. The Universal Service Fund is one of several federal programs that support buildout of communications facilities. Are current programs at other federal agencies, like the National Telecommunications and Information Administration (which oversaw the Broadband Technology Opportunities Program) or the Rural Utility Service (which oversees lending programs and oversaw the Broadband Initiatives Program) necessary?

U.S. Cellular believes that the job of deploying telecommunications networks will likely never be completed. Our citizens' expectations and needs continue to evolve, with greater access and improved throughput speeds in demand, while new technologies, applications, and innovations are emerging constantly. Our telecommunications networks, both wired and wireline, require thoughtful and coordinated investment by our government in areas where our citizens lack access to services that are comparable to those in urban areas. Congress understood this when they defined universal service as an "evolving level of telecommunications service." 47 U.S.C. Section 254(c).

In observing the BTOP and BIP programs, U.S. Cellular notes that almost no funding was directed at mobile broadband networks, to the nation's detriment, as such investments yield a significant "multiplier effect" for local economies. The RUS fund today is extraordinarily small, not nearly enough to move the needle with respect to the nation's infrastructure.

6. How can we ensure that the Universal Service Fund is sufficiently funded to meet its stated goals without growing the fund beyond fiscally responsible levels of spending?

So, from U.S. Cellular's perspective, we believe there should be a budget to achieve and maintain the aforementioned goals, within a reasonable time frame, and then the universal service fund should be sized appropriately to meet these goals.

Contribution reform has eluded the FCC for over a decade, primarily because the FCC must deal with the telecommunications/information services paradigm discussed above. Consumers and companies are arbitraging away from telecommunications services to information services, in part to achieve better services and in part to lower costs. Information services are proliferating rapidly, steadily reducing the size of interstate telecommunications revenues on which contributions are based.

7. Are all of the funds and mechanisms of the current Universal Service Fund necessary in the modern communications marketplace?

U.S. Cellular firmly believes the high-cost support mechanism, which has now been divided into the CAF and Mobility Fund, is essential to rural America. There remain significant parts of our nation lacking access to telecommunications facilities that are vital in delivering public safety and economic development, essential to our citizens' ability to participate in the modern economy. Others lack access that is reasonably comparable to facilities and services available in urban areas.

Currently, the FCC allocates approximately \$4.3 billion in annual CAF support to fixed networks, while \$500 million is allocated to mobile networks. U.S. Cellular believes that a mechanism to support both fixed and wireline networks in the United States is critical, however it does not agree with the FCC's current funding allocation. In 2014, the FCC tentatively concluded that 99.5% of American citizens have access to mobile broadband, based largely on statements made by the nation's two largest carriers and carrier advertising maps. To U.S. Cellular's knowledge, no independent coverage analysis has been conducted to attempt to support this tentative conclusion.

Moreover, the Commission has not made clear what the 99.5% figure means. Based on U.S. Cellular's experience in two dozen states, the company knows with certainty what it does not mean. It does not mean that 99.5% of rural citizens have the ability to place and receive calls, and access mobile broadband networks, where they live, work and travel, with a quality of service and a choice of carrier that is reasonably comparable to that which is available in our urban areas. And that is the standard Congress set out in the 1996 Act.

Given that the first wireless networks were licensed in rural areas nearly 25 years ago, it is easy to conclude that any area lacking service levels that are reasonably comparable to urban areas is an area where private investment is not going to come. U.S. Cellular is in the process of gathering and submitting evidence to the FCC to demonstrate that substantial rural areas, including state highways and local roads, lack adequate mobile broadband service, contrary to the FCC's tentative conclusion. U.S. Cellular will make copies of its submissions available to the Committee.

In sum, U.S. Cellular is certain that a federal universal service mechanism, designed to build and maintain our nation's telecommunications infrastructure in rural areas, is essential to ensuring that rural citizens have the same public safety benefits and economic development opportunities as those in urban areas.

8. In lieu of the current support mechanisms, could any of the programs be better managed or made more efficient by conversion to:

- a. A state block grant program;
- b. A consumer-focused voucher program;
- c. A technology-neutral reverse auction; or,
- d. Any other mechanism.

As stated above, U.S. Cellular believes that a consumer-focused voucher program is a viable option for the future. In order to be successful, a voucher program must be deployed in areas where more than one carrier has some facilities. Today, multiple carriers have built some facilities, but none provide coverage throughout an area. Each has dead zones within their networks and there are licensed areas beyond their existing coverage where no service exists.

In order to provide an incentive for carriers to extend their networks into areas where service is needed, the universal service mechanism can be structured so that consumers in underserved areas receive a voucher that can be used to purchase basic telephone service, or broadband. Empowering consumers to choose will provide carriers with an incentive to build networks, to capture customer revenues and the voucher support.

U.S. Cellular strongly endorses competitive and technological neutrality, to empower consumers to choose the services that best suit their needs. For many decades, competitors have been placed at a distinct disadvantage by federal and state policies protecting incumbents from competitive entry. We are reaching a tipping point, where competitive networks have developed sufficiently to provide many rural citizens with access to competitive voice and broadband services. A voucher mechanism, that enables consumers living in underserved areas to have access to one competitive provider, or choose their service provider from among several providers, will deliver lower prices and higher service quality.



UNIVERSAL SERVICE POLICY AND THE ROLE OF THE FEDERAL COMMUNICATIONS COMMISSION

The United States Telecom Association (USTelecom) welcomes this opportunity to provide input to the Committee on Energy and Commerce regarding its efforts to modernize the laws governing the communications sector – specifically, in the case of this white paper, by updating the provisions of the Communications Act relating to the universal service program. We have supported and continue to support a statutory framework that enables a practicable, efficient, and effective universal service policy.

USTelecom is the nation’s oldest and largest association for providers of wired communications. The association represents a broad array of companies, ranging from some of the largest employers in the U.S. to some of the smallest cooperatives and family-owned telecom businesses in rural America. The networks built and managed by USTelecom members have been, and will continue to be, critical to the nation’s ongoing communications revolution.

Our association is particularly well-positioned to analyze and discuss the universal service issue. Our member companies include both price cap carriers and rate of return carriers. In almost all cases, they have moved beyond providing their customers with only traditional voice service and now deliver voice, broadband and, in many areas, video as well. Those customers are urban and rural, residential and commercial, net contributors to and net beneficiaries of the Universal Service Fund (USF). Indeed, our Association's member companies deliver communications services to more rural Americans than the members of all other communications trade associations combined. And we have spent countless hours over the last two years studying both the positive attributes of and the flaws in the current system in order to develop consensus among our members about the Federal Communications Commission's (FCC) efforts to implement reforms and other changes in the program.

BACKGROUND

In one form or another, the principle of universal service has been central to federal communications policy for a century. As the Committee notes, the federal government originally sought to achieve that goal by granting a legal monopoly to one company in exchange for a commitment to deploy the same telephone service to all Americans. The Communications Act of 1934, in creating the FCC, went on to enumerate as one of its purposes “to make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communications service with adequate facilities at reasonable charges.”

In 1996, recognizing that the implicit mechanisms inherent in the monopoly structure that had ensured universal service would no longer be viable in a competitive telecommunications industry, Congress amended the Communications Act to direct the FCC to establish explicit mechanisms to support provision of communications service in high-cost areas. At the same time, the 1996 Act established mechanisms to support provision of communications services for health care providers in rural areas, as well as for schools and libraries. Finally, the Act provided the FCC the authority to collect funds from telecommunications providers and any other provider of interstate telecommunications to contribute to the preservation and advancement of universal service.

By opening telecommunications markets to competition, the 1996 Act altered the social compact under which incumbent local carriers had been granted certain implicit subsidies in return for their commitment to offer service throughout their franchise areas at just and reasonable rates. Congress recognized that those implicit subsidies would no longer be sustainable in competitive markets. It therefore established a new social compact under which carriers would receive explicit federal support to provide universal service in particular high-cost areas.

At that time, implicit subsidies ran from long distance to local service customers, urban customers to those in rural areas, and business customers to residential subscribers. But in the last decade, the most basic of these implicit subsidies – from local service customers in low-cost, high-density areas to those in high-cost rural areas – has been shredded by an explosion of competition particularly in those high-density areas from cable companies, wireless service providers, and others.

Nevertheless, particularly in the areas of the country that are the most difficult and most expensive to serve, one and only one group of communications providers has continued to deliver service – America's telecom companies. They have been rolling out broadband in the communities they serve as quickly as their own finances, the USF program, and other programs like the RUS broadband loan program have permitted. Those providers are better equipped to deploy, maintain, and regularly upgrade broadband to currently unserved and underserved areas than any other segment of the communications industry if, under the current statute or any future one, the criteria on which a USF program is built are economically and financially sound. Any update in the statute should acknowledge these realities and take advantage of the broad knowledge base that the telecom industry brings to the table when it comes to deploying broadband in the most expensive and challenging areas of the country.

UNIVERSAL SERVICE FUNDING FOR HIGH-COST AREAS

The high-cost universal service program is appropriately evolving from supporting voice service alone to supporting voice and broadband. Broadband is a platform for voice, video, and data services that consumers in high-cost areas – every bit as much as those urban and suburban areas – consider essential to enriching their lives. Access to broadband service is vitally important for economic development and the efficient provision of health-care, government, and educational services – sometimes even more so in rural America than in higher density regions of the country.

By and large, the private sector has done an excellent job of delivering broadband access to the vast majority of Americans,¹ but there still remain many rural, high-cost areas that will require ongoing universal service support to maintain broadband or to obtain it for the first time. Although most Americans have more and better broadband choices than ever before, it is still challenging and uneconomic to provide advanced services in low-density, high-cost rural areas. It is of course preferable for the market to ensure provision of communications service to American consumers, but where no business case exists for broadband deployment – not to mention stand-alone voice service – it is appropriate for state and federal governments to intervene to provide support for carriers who wish to offer service reasonably comparable in price and quality to that offered in urban areas. The advances in rural broadband access described above have been possible only because of universal service funding. Such funding continues to be necessary for broadband that has already been deployed in areas that are otherwise uneconomic to serve, as well as for deployment in the remaining low-density, high-cost rural areas of the country that have yet to receive broadband.

Although the USF distribution elements of the current statute certainly could benefit from streamlining and clarification, they have not been an obstacle to the FCC's development of high-cost universal service programs supporting broadband for rate-of-return and price cap ILECs, mobile carriers, and others who will be offered the opportunity to participate in the high-cost universal service funds. Consistent with the statute, the FCC is working to develop competitively and technologically neutral mechanisms that will allow non-traditional providers to receive high-cost support as long as they provide the requisite services at reasonable and comparable quality and rates. These mechanisms will be designed efficiently to distribute a limited amount of support by restricting it to areas in which the market has not provided sufficient incentives for potential providers to build-out broadband facilities meeting reasonably comparable pricing and performance standards.

Given the extraordinary costs of rural deployment, it is of course inefficient for high-cost universal service funding to support more than one provider per geographic area. At the same time, it is appropriate to ensure that scarce federal dollars are used to deploy broadband to these areas as quickly, efficiently, and competently as possible. And while the USF high-cost program is primarily a federal program, states should be encouraged to participate in supporting service to high-cost areas as long as the mechanisms they implement are consistent with the federal mechanism and are voluntary for providers within the state. The current statute satisfactorily allows the FCC to deal with all of these considerations.

Discussion of updating the Communications Act would benefit, however, from spelling out explicitly the meaning of the term "sufficient" as it is used in section 254 in the context of high-cost universal service support. For such support to be deemed sufficient, USTelecom believes the amount made available to a particular provider for serving an area must equal the cost of the burdens imposed. Providers should not be selectively handicapped by having to

¹ According to the National Broadband Map, nearly 95 percent of Americans have access to fixed broadband and 88 percent can choose from two or more fixed providers. According to a report by the Commerce Department's National Telecommunications and Information Administration reflecting mid-2013 data, 78 percent of Americans living in rural areas have access to wired broadband.

fulfill unfunded mandates, including the provision of certain products and services designed to meet obsolete regulatory requirements, rather than actual consumer demand.

Finally, particularly for price cap carriers, it makes no sense to continue maintaining Eligible Telecommunications Carrier (ETC) designations made more than fifteen years ago, together with ETC obligations designed to implement explicit high-cost support mechanisms that soon will be phased out and implicit support schemes that competition has long since eroded. By eliminating these legacy ETC designations and requirements, the FCC could enable price cap carriers and other legacy ETCs to focus limited capital resources on extending broadband to additional areas and responding to actual consumer demands, rather than wasting them on rapidly obsolescing facilities and services. While USTelecom believes the existing statute requires the elimination of legacy ETC designations and obligations in areas served by price cap carriers in areas receiving no universal service support, Congress should make it clear in an update of the Act that the FCC must eliminate the ETC designation in areas in which price cap carriers do not receive universal service support.

UNIVERSAL SERVICE LOW-INCOME SUPPORT

The 1996 Act mandates that the FCC base policies for the preservation and advancement of universal service on a set of principles that includes access to telecommunications and information services for low-income consumers. While the fundamental objectives of low-income support are sound, Congress should require the FCC to undertake a comprehensive re-examination of how the program is administered in light of the vast technological and marketplace changes that have occurred since 1996.

The FCC's low-income fund began as a way to address concerns that implementation of the Subscriber Line Charge (SLC) would unfairly harm low-income consumers. This was based on the idea that low-income consumers would save less in lower per-minute long-distance rates caused by implementation of the SLC than the amount of the SLC they would pay. As access charges were further reformed and SLCs were increased, the amount of the support payment for each eligible low-income consumer was increased. The same amount of the support was made available to low-income consumers who did not even subscribe to ILEC services and thus were not assessed a SLC. In its recent Lifeline reform decision, the FCC recognized that most Lifeline customers subscribe to wireless services, which do not charge SLCs, and changed the calculation of the Lifeline benefit for each household from one based on the legacy ILEC SLC charge to an equivalent flat dollar amount.

Today the Lifeline program almost entirely supports provisions of wireless service, particularly prepaid wireless service. Yet all providers classified as ETCs are required to participate. This imposes significant costs on such providers relating to structuring billing systems, complying with the FCC's accounting and auditing requirements, and, in most instances, determining and identifying eligibility of consumers for the program. This last element is unique among federal programs that subsidize the provision of goods or services to low-income consumers. It is costly for providers to perform this function and invades the privacy of their customers, who are forced to share very private income and benefit information with a private sector entity for this one narrow purpose.

In updating the Act, the evolution of the low-income support program in light of changing technologies and these other considerations warrant the Committee's attention. Congress should determine first which services should be supported to fulfill the mandate in the statute. It should then determine the level of support for rates for those services that significantly increase penetration among low-income consumers and that can be accommodated within a reasonably-sized fund. Next, it should develop a system of determining and verifying eligibility among consumers that can be administered by federal and/or state governments. (This, for example, is the method long used by the Low-Income Home Energy Assistance Program, or LIHEAP.) Finally, and more generally, Congress should consider how to ensure that low-income consumers have a sufficient number of carrier options to meet their needs without necessarily mandating costly participation by every legacy provider, particularly when low-income beneficiaries of the Lifeline program appear to be “voting with their feet” in record numbers and walking away from those legacy providers.

UNIVERSAL SERVICE CONTRIBUTIONS

A fair and equitable system of funding universal service is important to accomplishing universal service goals. The communications ecosystem has undergone extensive changes and the current universal service contribution system has not kept pace. A system must be developed that can ensure stable and equitable universal service funding into the future. The optimal result of such a process would be a clear, consistent, simple approach that could be easily administered by all contributors.

Any update to the USF contribution system should include practical and easily implemented fixes to the current approach. Regardless of which products and services are assessed, and whether Congress (or the FCC) chooses to undertake short-term solutions or comprehensive reform, four principles should guide changes to USF contributions:

1. The contribution base should be stable and predictable.
2. All providers should contribute in a competitively and technologically neutral manner. Provider discretion should be minimized.
3. Consumer impacts should be equitably distributed consistent with the public interest benefits of universal service.
4. Administrative efficiency should be maximized.

The threshold question that must be answered in order to begin construction of a fair and stable universal service contribution system is the determination of who should contribute – or more properly, which providers of products or services should contribute to universal service funding? Once the answer to that question is decided, it will be much simpler to construct a workable methodology for collecting contributions.

Now that the high-cost and E-rate funds support broadband services, it is appropriate to examine whether to extend the contribution obligation to broadband as well. But that examination should be broader than assessing the current contributors to universal service; it must seriously examine including more participants from the broadband ecosystem, whether that obligation is assessed on a direct or indirect basis, and include an appropriate transition to a more broadband-oriented universal service contribution plan.

When considering changes to the universal service contribution methodology, Congress should address the following questions:

1. Are the beneficiaries of a universal broadband network principally residential end users, or do they include edge providers whose business plans ultimately depend on ubiquitous broadband, as well as the network investment needed to accommodate bandwidth-hungry services to and from residential end users? Are the beneficiaries also manufacturers and distributors of devices that connect to the broadband network and will ultimately comprise the “Internet of Things?”
2. Does the point-to-point justification for assessing network provider end users in the world of the legacy voice network still apply in the broadband world, which encompasses many services beyond point-to-point communications? In the traditional voice network, the calling party benefits from the network connection of the called party, and vice versa. In the broadband world, where services may be not only point-to-point, but point-to-multipoint and many permutations in between, others than those traditionally thought of as end users may benefit.
3. Do “vertical” edge providers mainly residing in the applications layer of the broadband ecosystem now have the same stake in network ubiquity as “horizontal” network-layer participants?
4. Should functionally equivalent services delivered over different technologies be treated the same or continue to be treated differently for purposes of contributing to the USF? For example, if a voice conversation can be conducted over a traditional copper line telephone, and an identical voice conversation can be conducted via an over-the-top Internet application that also provides a video component, should the consumer of the former service be subject to paying USF fees while the consumer of the latter service is not?
5. From a practical standpoint, how can participants in or beneficiaries of the broadband ecosystem, beyond network providers, be assessed directly or indirectly?

More broadly, in light of the universal service policy that Congress has long cherished, as well as the demands being placed on the program in terms of both rural infrastructure needs and broader goals that the Nation has long pursued, Congress should consider whether the USF is sustainable using the current contribution methodology and sources. It seems mathematically impossible to expect that a smaller and smaller portion of the public – and mostly the urban and suburban public, at that – will pay a higher and higher percentage of their monthly “telephone”

bills to fund a program that by and large benefits a smaller and smaller portion of the Nation's residents who cost more and more to reach with the newest and most advanced technologies. Such a system is destined to collapse under its own weight.

CONCLUSION

USTelecom has supported and continues to support a statutory framework that enables a practicable, efficient, and effective universal service policy. While the current statute has not been an obstacle to the FCC's development of high-cost universal service programs supporting broadband for rate-of-return and price cap ILECs, mobile carriers, and others who will be offered the opportunity to participate in the high-cost universal service funds, an update in the law could provide helpful clarifications and streamlining in some areas. Similarly, the Lifeline program providing support for low-income Americans is a worthy program that should be retained, but its details have not been adequately rethought in light of the enormous technological and marketplace changes that have occurred since enactment of the 1996 Act. An update of the statute would provide an opportunity for improvements there too. Finally, the philosophy and principles underlying USF contributions, and the methodology and sources for USF assessments, must be completely revisited with an eye toward Congress's expectations of what the universal service program can realistically be expected to accomplish.

Response to Committee White Paper

The Utilities Telecom Council (UTC)¹ hereby responds to the House Energy and Commerce Committee White Paper #5, “Universal Service Policy and the Role of the Federal Communications Commission”. UTC believes that there are several issues related to the Universal Service Fund that the Committee should be considering as part of the Communications Act update.

Utilities, including particularly municipal and cooperatively organized utilities, are answering their customers’ demands for robust, affordable and reliable broadband services to unserved and underserved rural areas and communities. While there are many utilities that are deploying networks and offering service,² access to federal funding through the Connect America Fund (CAF) could enable more utilities to provide broadband service to unserved areas.

Currently, price cap carriers are given a right of first refusal for access to model-based support from the Connect America Fund for a term of five years. As a practical matter, this prevents competitive entry by other providers, who may not be able to afford to deploy networks in these areas without access to CAF funding.

The Commission is currently proposing to remove areas from the right of first refusal for price cap carriers, if a formal proposal is submitted by a competitor to provide a rural broadband experiment in those areas.³ This proposal holds the potential to open up these areas to competitive bids as part of a reverse auction for access to CAF Phase II funding to provide broadband services.

While this is good news for utilities that would otherwise be prevented from accessing CAF Phase II funding, it is even better news for consumers in unserved areas who will now benefit from competition from entities like utilities who can provide broadband services that are more robust, affordable, and reliable than the services that would be offered by price cap carriers. Competition from utilities will promote rural broadband access because utilities have extensive resources that can be leveraged to provide broadband services, utilities already are located in rural areas and are committed to providing service across their entire service areas, and they design, construct and maintain

¹ Established in 1948 and based in Washington, DC, UTC is the international association for the telecom and information technology interests of electric, gas and water utilities and other critical infrastructure industries (CII). UTC’s members use communications in support of the safe, reliable and secure delivery of essential energy and water services to the public at large. Some of UTC’s members also provide communications including broadband services to rural areas. Finally, UTC’s members also help others provide these services by offering wireless collocation and wholesale fiber optic services, as well as access to pole attachments. As such, UTC advocates for policies that promote access to spectrum by utilities and other CII, as well as for policies that promote the ability of utilities and CII to provide communications, including broadband services, and wireless collocation and wholesale fiber services.

² For example, Co-Mo Electric Cooperative in Tipton, Missouri is offering 1 gigabit per second (Gbps) Internet services for less than \$100/month, as well as triple-play telephone and television services, to sparsely populated areas, where customer density in some places is less than 6 customers per line mile. See http://co-mo.net/Co-Mo_Connect/HomePage.html.

³ Connect America Fund, *Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking*, WC Docket No. 10-90 at ¶220 (rel. June 10, 2014).

communications networks to remain reliable, secure and resilient even when commercial communications networks are damaged and inoperable after hurricanes and other emergencies.

UTC urges Congress to promote competition from utilities and others to provide broadband access in unserved areas by enabling them to access CAF funding in these unserved areas. With that as backdrop, UTC offers the following responses to the questions that the House Energy and Commerce has posed in its whitepaper on Universal Service.

Questions for Stakeholder Comment

1. How should Congress define the goals of the Universal Service Fund? Should Congress alter or eliminate any of the six statutory principles, codify either of the principles adopted by the FCC, or add any new principles in response to changes in technology and consumer behavior?

UTC believes that Congress should recommit to the principles upon which the Universal Service Fund is founded and apply these principles to broadband as well as telecommunications services. As broadband becomes increasingly important for creating economic opportunities in rural areas, as well as promoting education and health and safety, it is critical that the Universal Service Fund support broadband access to rural unserved areas for all Americans. Consistent with these principles, broadband in rural areas should be reasonably comparable in quality and price to broadband services in urban areas.

To its credit, the Commission is proposing to increase the minimum broadband speeds, so that consumers in unserved areas will have access to broadband services that are reasonably comparable to broadband services that are available in urban areas. UTC supports the Commission's efforts to bring faster broadband to unserved areas, and it believes that more robust networks can be cost-effectively deployed in unserved areas. Utilities are already providing robust broadband services to rural areas using fiber optic networks, and these services are being offered at prices that are reasonably comparable with those in urban areas.

As such, Congress should support the efforts of the Commission to bring faster broadband to rural areas, and it should enable utilities to help provide these services because utilities have the resources, the capability and the commitment to their communities to provide robust, affordable and reliable services.

2. Universal service was created to fund build-out in areas incapable of economically supporting network investment. How should our policies address the existence of multiple privately funded networks in many parts of the country that currently receive support?

Congress should continue to provide funding in areas that are served by subsidized providers. Currently, areas that are served by unsubsidized providers are ineligible for funding to provide broadband services, but the Commission is considering also excluding areas from funding if they are served by a subsidized provider.

UTC is concerned that if areas are excluded from funding because they are served by subsidized providers that many consumers will be unable to access broadband services in those areas for the foreseeable future. That is because a subsidized provider may only serve a small percentage of an area, leaving the rest of the area unserved – and yet the entire area would be treated as “served” and hence excluded from further funding to promote broadband access. This is a real problem. Many parts of the country are only partially served, and price cap carriers that serve these areas are mainly serving densely populated parts of these areas. Moreover, they are tending to accept CAF funding to build out to the edge of their existing networks to provide service to “underserved” areas, rather than unserved areas. Hence, cutting off funding in areas that are served by subsidized providers would perpetuate the practice by the price cap carriers of bypassing high-cost customers in these areas and only serving customers in densely populated “underserved” areas.

As such, Congress should recommit to the principles that broadband should be available to *all* Americans and that the services should reasonably be comparable in terms of quality and price to the broadband services that are available in urban areas.

3. What is the appropriate role of states and state commissions with respect to universal service policy?

UTC believes that states and state commissions should continue to serve an important role in the universal service fund. In that regard, the Commission requires that broadband service providers should obtain “eligible telecommunications carrier” certification from the states in order to be eligible to receive funding for broadband under the Connect America Fund – but, the Commission allows broadband service providers to obtain ETC certification after they have been notified that they are being awarded funding rather than as a precondition for applying for CAF funding. UTC supports this approach, which recognizes the role that states serve but which also streamlines the process and enables entities like utilities to more easily obtain access to CAF and obtain ETC certification after an award of funding is made.

As such, Congress should support innovative approaches for continuing the important role of the states and state commissions in universal service policy in a way that removes barriers to entry in the broadband market by utilities and others.

4. What is the appropriate role of the Federal-State Joint Board on Universal Service in a broadband, IP-enabled, largely interstate world? What is the appropriate role of related joint boards, such as the Federal-State Joint Board on Separations or the Federal-State Conference on Advanced Services?

UTC believes that the Federal-State Joint Board has an appropriate role in a broadband, IP-enabled, largely interstate world. Specifically, the Board could help to ensure that services continue to meet standards for quality and reliability and that all consumers are able to access these services. Otherwise, enduring values such as public safety, national security, competition and access may be compromised as the IP-transition occurs.

5. The Universal Service Fund is one of several federal programs that support buildout of communications facilities. Are current programs at other federal agencies, like the National Telecommunications and Information Administration (which oversaw the Broadband

Technology Opportunities Program) or the Rural Utility Service (which oversees lending programs and oversaw the Broadband Initiatives Program) necessary?

UTC supports the Rural Utilities Service, which provides loans for rural broadband to many utilities, particularly electric cooperatives. These loans help to make it possible for utilities to economically serve unserved areas – and should be maintained and expanded. While loans help to support rural broadband access by utilities, grants would help to further promote broadband access by utilities in unserved areas.

As such, Congress should continue to support the RUS broadband loan program, and it should expand its authority to be able to offer grants, as well as loans.

6. How can we ensure that the Universal Service Fund is sufficiently funded to meet its stated goals without growing the fund beyond fiscally responsible levels of spending?

The Commission is currently considering reforms to the Universal Service Fund that are designed to ensure that it is sufficiently funded to meet its goals without increasing the size of the Fund. These efforts are ongoing.

Congress should monitor the efforts of the Commission to ensure that the USF is sufficiently funded going forward. UTC recognizes that reforms are needed to ensure that funding is allocated efficiently, but it is concerned that reforms may reduce funding in unserved areas, thereby preventing them being served with robust, affordable and reliable broadband services.

6. Are all of the funds and mechanisms of the current Universal Service Fund necessary in the modern communications marketplace?

UTC believes that the funds and mechanisms of the current Universal Service Fund remain necessary to ensure access to robust, affordable and reliable broadband services. As networks increasingly migrate towards broadband services, it is important that the USF increasingly support access to broadband services.

8. In lieu of the current support mechanisms, could any of the programs be better managed or made more efficient by conversion to:

- a. A state block grant program;
- b. A consumer-focused voucher program;
- c. A technology-neutral reverse auction; or,
- d. Any other mechanism.

UTC supports the use of technology-neutral reverse auctions to promote rural broadband access. In this regard, the selection criteria for the reverse auctions should provide preferences for technologies that provide higher speeds and more reliable services, which are also reasonably comparable in price to similar services in urban areas. The reverse auction should not result in a process that simply accepts the lowest bid, and leaves rural areas with only access to minimal speeds and unreliable service.

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**MODERNIZING THE COMMUNICATIONS ACT:
UNIVERSAL SERVICE POLICY AND THE ROLE OF THE FCC**

Verizon welcomes this opportunity to provide comment on the fifth in a series of white papers regarding the efforts by the Committee on Energy and Commerce to modernize the laws governing the communications and technology sectors. As the Committee recognizes, the last several years have seen “rapid change in communications technologies” and “shifts in consumer preferences” that have had a significant “impact on competition” in the communications ecosystem. Universal service policy should reflect the changed marketplace. For its part, the Federal Communications Commission (“FCC”) also has been tracking these developments and has begun reforming the universal service program to bring it in step with the marketplace by making subsidies explicit and subsidizing broadband in a way that does not affect competition.

I. A Narrowly Focused Universal Service Program Fulfills Needs in Targeted Circumstances.

With changes in technology and consumer preferences and a rise in intermodal competition, Americans in virtually every part of the country today are able to connect and communicate in a variety of ways via a host of different providers. Even in rural areas, consumers typically can choose from multiple voice and broadband providers, including many that are providing service without universal service subsidies. Moreover, new technologies – including wireless and satellite – have expanded the options for serving customers in areas that were costly to serve using wireline technologies. Due to the increased competition in the

marketplace and the expansion of choices for service, there are fewer instances in which universal service subsidies are necessary and fewer instances in which providers must shoulder associated regulatory obligations.

But there may still be discrete, isolated areas or some consumers who would not have service in the absence of subsidies. Therefore, using federal subsidies to achieve universal service principles may still be appropriate in certain targeted circumstances. For instance, subsidies may still be necessary in circumstances where the cost to deploy service is prohibitively expensive or where consumers or other public service institutions need assistance in obtaining service. In general, however, the Universal Service Fund should function as a backstop, only in cases where there is clear evidence that services are not available or affordable.

In addition, the Committee correctly observes that there are several other federal programs that support buildout of communications facilities. Other federal agencies – like the National Telecommunications and Information Administration (which oversaw the Broadband Technology Opportunities Program) and the Rural Utility Service (which oversees lending programs and oversaw the Broadband Initiatives Program) – already provide funding for communications projects in various areas. The universal service program therefore should only be used to fill in gaps in places where these other federal programs do not already satisfy needs.

II. Universal Service Funding Should Be Provided in a Rational, Thoughtful Manner.

Universal service funding must be provided in a thoughtful and efficient manner – particularly since the cost of that funding ultimately is paid for by contributions from consumers and businesses. In particular, government funding to promote further buildout is appropriate only if there is no unsubsidized competitor already in place providing the desired service and no unsubsidized competitor plans to fill that need in future as part of its business case. Moreover,

funding should go only to one provider in a particular area – thereby maximizing the funding available to other areas where no provider exists. To maximize efficiency, the universal service program should rely on competitive processes (e.g., competitive bidding) to the greatest extent possible to select the provider that will receive universal service subsidies.

Universal service obligations should not be imposed on providers. The provision of universal service in high cost areas involves significant construction costs and operating and maintenance expenses. Universal service obligations also carry significant administrative costs; for example, providers bear the costs associated with processing Lifeline applications and conducting annual recertification. Consequently, only those providers that *choose* to participate in federal universal service programs, in exchange for the provision of sufficient support, should bear universal service obligations.

III. Universal Service Policy Is Already on the Right Course.

The FCC already has recognized many of these policy concerns and, in 2011, adopted its Universal Service Fund/Intercarrier Compensation Transformation Order (“*USF/ICC Transformation Order*”) to address these and other changes that have occurred in the marketplace.¹ The *USF/ICC Transformation Order* fundamentally overhauled the universal service program, modernizing the ways in which providers receive funding in several important respects.

Chief among the order’s reforms was washing away much of the implicit subsidy framework that existed under legacy telephone systems and legacy regulation. The *USF/ICC*

¹ See *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform – Mobility Fund*; WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663 (2011) (“*USF/ICC Transformation Order*”).

Transformation Order instead implemented an explicit subsidy framework, under which the nature, extent and source of subsidies are clear – reducing many of the inefficiencies and competitive distortions that existed under the old framework. Key to that approach was a companion reduction in regulated carrier-to-carrier traffic rates (i.e., “intercarrier compensation”) that served, historically, as a source of implicit subsidies that created myriad inefficiencies and arbitrage opportunities. Going forward, any future universal service subsidies likewise should be explicit in order to promote transparency and create the proper market incentives.

The *USF/ICC Transformation Order* and subsequent FCC proceedings also have addressed the appropriate circumstances in which government funding should be provided to subsidize the buildout and provisioning of services. Consistent with the discussion above, the FCC generally has made Connect America Fund (“CAF”) funding available in those unserved areas where there is not already a business case to make those services available without subsidy. Similarly, the FCC has sought comment on various reforms linking universal service funding to corresponding regulatory obligations – and eliminating such obligations for those providers that do not receive such funding.

CONCLUSION

Verizon generally supports the current direction that the FCC has taken with respect to universal service policy, and looks forward to working with the Committee as it continues to update communications law and policy for the modern era.



**Response of WTA – Advocates for Rural Broadband
and the Washington Independent Telecommunications Association
to the House Energy and Commerce Committee’s White Paper on
Universal Service Policy and the Role of the Federal Communications Commission**

September 19, 2014

In its White Paper on *Universal Service Policy and the Role of the Federal Communications Commission*, the House Energy and Commerce Committee (Committee) requests public comment on several issues regarding universal service policy for the modern communications ecosystem and the federal and state roles in maintaining and advancing universal service.

WTA – Advocates for Rural Broadband (WTA) is a national trade association representing more than 250 small rural telecommunications providers that serve some of the United States’ most remote, difficult and expensive-to-reach areas and are providers of last resort to those residing there. Most WTA members serve fewer than 3,000 access lines in the aggregate and fewer than 500 access lines per exchange. Whereas WTA members were predominately providers of traditional voice services over copper networks during the early 1990’s when the Telecommunications Act of 1996 was being debated and enacted, they have now evolved substantially down the path toward the provision of increasingly higher-capacity broadband data, video and voice services over hybrid fiber/copper networks. They are also in the midst of converting from Time Division Multiplexing (TDM) to Internet Protocol (IP) technology. The Washington Independent Telecommunications Association represents independent RLECs throughout the state of Washington.

In its response to the Committee’s initial White Paper on Modernizing the Communications Act, WTA emphasized that the Committee should keep in mind the following three key points: (1) while the communications industry and technology have changed over the decades, many of the

principles underlying current law remain sound; (2) rural areas of our country served by WTA's members have different market dynamics than more suburban and urban areas and continue to need regulatory structures tailored to these unique circumstances; and (3) federal universal service policies for areas served by rural local exchange carriers (RLECs) have helped to ensure that consumers living in high-cost rural areas receive services reasonably comparable in quality and price to those provided in more densely populated areas. WTA reiterates the validity and importance of these three principles.

Statement of WTA Position on Universal Service Policy

Since the passage of the Telecommunications Act of 1996, a host of major changes have taken place in the telecommunications industry, including the growth of the Internet, website marketing, blogs, social media, smart phones and video streaming. Yet, Section 254 continues to provide a remarkably relevant and up-to-date framework for universal service policy. This is in large part because the public network continues to require investment in a capital-intensive infrastructure of increasingly fiber optic trunks and lines, plus radio towers and transmitters, as it develops from the Public Switched Telecommunications Network (PSTN) into the Public Broadband Network. In other words, both the critical importance of infrastructure investment and the basic trunk/line/tower network structure have remained similar since 1996, whereas the mass of the observed changes have been comprised of an explosion of new applications and services provided over the underlying network.

The Section 254(b) principles of quality services, affordable rates, access to advanced services, reasonably comparable services and rates in urban and rural areas, and specific, predictable and sufficient universal service support mechanisms remain equally relevant and critical for the emerging Public Broadband Network as they were for the PSTN. Section 254(c) wisely defined "universal service" as an "evolving level of telecommunications services" that the Federal-State Joint Board on Universal Service (Joint Board) and Federal Communications Commission (FCC) could periodically review and redefine for purposes of their eligibility for support by federal universal service support mechanisms. Section 254(d) equally wisely avoided the uncertainties and political conflicts of the federal budget process and continued to fund federal universal service support mechanisms via equitable and nondiscriminatory contributions from carriers and customers that enjoy the network effect benefits of being able to communicate with virtually all other Americans. Finally, Section 254(e) required recipients of federal universal service support

to be scrutinized and approved as eligible telecommunications carriers by their state commission or the FCC and mandated that such support be used only for the provisioning, maintenance and upgrading of facilities and services for which the support was intended.

WTA and its members have disagreed with the FCC's interpretation and implementation of some of the provisions of Section 254. However, the existing wording of Section 254 continues to address the basic universal service issues – particularly, the need to provide carriers with effective and appropriate incentives to invest in the necessary fundamental network infrastructure – in 2014 as well as it did in 1996. Rather than revising Section 254, Congress should exercise its oversight authority to compel the FCC to implement and administer Section 254 so as to provide the statutorily mandated stability and certainty (that is, the Section 254(b)(5) and 254(e) “specific, predictable and sufficient” support mechanisms) that are essential to encourage and enable carriers to make the 10, 20 and 30-year infrastructure investments (including obtaining and repaying associated loans) needed to extend and upgrade their networks to provide an evolving level of universal service to their customers.

Responses to the Committee's Specific Questions

1. How should Congress define the goals of the Universal Service Fund? Should Congress alter or eliminate any of the six statutory principles, codify either of the principles adopted by the FCC, or add any new principles in response to changes in technology and consumer behavior?

Congress did an excellent job in the 1996 Act of defining the relevant, long-term goals of the Universal Service Fund (USF) in the six statutory principles of Section 254(b). In light of the critical and continuing importance of infrastructure investment in achieving the desired ubiquitous national public network (initially voice, and now increasingly broadband), it is very difficult to conceive of any more enduring or effective principles than the quality services, affordable rates, access to advanced services, reasonably comparable services and rates in urban and rural areas, and specific, predictable and sufficient universal service support mechanism principles adopted in Section 254(b).

The additional principles adopted by the FCC have been somewhat less successful in achieving USF goals. While not objectionable *per se*, the FCC's “competitive neutrality” principle has often served to reduce the quality of supported services to the lesser standards capable of being met by wireless services and was the basis for the now discredited program of providing multiple

wireless carriers in many markets with “identical support” based upon the higher costs of wireline carriers of last resort (CoLR). WTA’s position has long been that wireline and wireless are complementary (rather than equivalent or competitive) services and that they are used in tandem by a majority of Americans for diverse purposes.¹ Therefore, wireline and wireless services should both be supported via separate USF mechanisms so that residents of rural and other high-cost areas have access to wireline and wireless services reasonably comparable to those available in urban areas. WTA also notes that wireline networks are essential to provide backhaul for wireless networks and to carry the high-capacity voice, data and video traffic that would otherwise produce disruptive congestion on wireless networks.

Similarly, by imposing broadband build-out requirements upon a universal service system that continues to explicitly support only voice services, the FCC’s recent “support for advanced services” principle constitutes an awkward alternative to the much more straightforward approach of using the Section 254(c) process to designate broadband transmission services as supported services. While political considerations regarding “regulation of the Internet” are responsible in large part for the FCC’s approach, a less convoluted alternative would have been to make the Section 254(c) designation of broadband transmission service (that is, the common carrier broadband telecommunications component included in broadband service rather than the retail broadband service sold to consumers) as a supported telecommunications service and use the Section 10 forbearance process to eliminate any unnecessary Title II regulation of specific broadband services where warranted.

2. Universal service was created to fund buildout in areas incapable of economically supporting network investment. How should our policies address the existence of multiple privately funded networks in many parts of the country that currently receive support?

Virtually none of the rural areas served by WTA members have truly competitive service providers that serve the entire RLEC service area; provide relatively equivalent services, service quality and prices; or otherwise fulfill the CoLR roles that have long and successfully been borne by RLECs.

For example, most WTA member companies do not have a *bona fide* cable competitor offering comparable voice and broadband services; and virtually none have such a competitor that offers service throughout its entire rural service area. In many areas where there is purported cable

¹ CDC, *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July-December 2013*. <http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201407.pdf>

competition, the alleged “competitor” is the RLEC’s own affiliated cable television (CATV) or Internet Protocol television (IPTV) service. In addition, another significant group of WTA member service areas contain small, locally owned CATV systems that have limited channel capacity, that provide minimal or no voice or data services and that do not extend their services far (if at all) outside the town center. Finally, the relatively few, large, multiple system CATV operators that serve WTA member areas virtually always limit their service to towns and other more densely populated areas and rarely ever extend their networks out into the much higher cost and more sparsely populated farm, ranch and mining areas surrounding these population centers.

With respect to wireless networks, many WTA members report that the availability of unaffiliated wireless voice service in their rural areas is inconsistent outside of major towns and away from major highways and is not available at all in some towns and along some rural highways. Wireless broadband coverage and service quality are also problematic in many rural high-cost areas. FCC Chairman Tom Wheeler recently noted that even in cases where competition from mobile broadband services does exist, “today it seems clear that mobile broadband is just not a full substitute for fixed broadband, especially given mobile pricing levels and limited data allowances.”²

Whereas some formerly rural areas have become more densely populated and suburbanized as urban areas have expanded to encompass them,³ the demographics of the vast majority of rural areas have not changed, and the basic problems continue to be sparse populations, rugged terrain, long distances between customers and high per-customer costs. WTA members and other RLECs continue to be the only entities that have demonstrated a sustained, long-term commitment to accept responsibility as CoLRs to invest in, construct and maintain the networks needed to serve these high-cost rural areas.

The FCC is currently developing rules and procedures to limit the provision of federal universal service support in areas where there are one or more “unsubsidized competitors.” With respect to RLEC service areas, if these rules are properly crafted and implemented, they will affect only recently suburbanized areas where CATV or other wireline competitors offer equivalent services throughout the entire RLEC study area. In contrast, if these rules allow competitors to cherry

² Wheeler, Tom. "The Facts and Future of Broadband Competition." 1776, Washington, D.C., 9 Sept. 2014. <http://www.fcc.gov/document/chairman-remarks-facts-and-future-broadband-competition>

³ Whether or not these newly suburban areas attract one or more competing networks, the increased economies of scale and lower per-customer costs resulting from their population growth will soon render these areas ineligible for high-cost support.

pick population centers and neglect outlying areas in the RLEC service territory, the resulting reductions of federal universal service support in such population centers will be counteracted by much higher costs and support in the outlying areas and/or substantial reductions of investment and service in those outlying areas. The Committee should monitor the FCC's "unsubsidized competitor" rulemaking and make certain that it provides the requisite incentives and support for continued rural network infrastructure investment.

3. What is the appropriate role of states and state commissions with respect to universal service policy?

The states and state commissions possess the major advantage of proximity to their various regions, communities and residents. They are in a much better position than the FCC to discern and monitor the interests and service needs of their various regions and constituencies and the reasonableness and appropriate costs of various alternatives for meeting them. At the same time, the former system of allowing state commissions to designate multiple competitive eligible telecommunications carriers (CETCs) to receive federal "identical support" led to waste and inefficiencies as some state commissions designated as many as 8 or 10 or 12 CETCs in various rural study areas.

Some states have established state universal service funds of various sizes, while other states have not. State universal service funding is likely to become more complicated in the future as the role of jointly federal and state regulated voice services decreases and the role of broadband services over which the FCC has claimed virtually exclusive regulatory jurisdiction increases. However, broadband service is so important to the economic, educational, medical, governmental and social well-being of their residents that states should have a substantial interest in funding broadband infrastructure whether or not they have telecommunications regulatory authority over various broadband services.

WTA suggests that Congress examine ways to create incentives for state governments to become more proactive in providing universal service funding for broadband infrastructure deployments and upgrades in their high-cost areas. One possible approach would be to review the status and effectiveness of current federal-state regulatory jurisdiction over broadband services and perhaps confer greater regulatory jurisdiction over broadband services upon states with state universal service funds that support broadband infrastructure and services.

4. What is the appropriate role of the Federal-State Joint Board on Universal Service in a broadband, IP-enabled, largely interstate world? What is the appropriate role of related joint boards, such as the Federal-State Joint Board on Separations or the Federal-State Conference on Advanced Services?

The Joint Board has express statutory authority under Section 254(c) of the Communications Act to recommend changes in the services supported by federal universal service support mechanisms. The Joint Board has long provided a valuable opportunity for federal and state regulators to discuss and debate universal service policies from a variety of different perspectives and to devise potential regulatory solutions that have a broader base of support throughout the country. Whereas the FCC has the discretion to adopt Recommended Decisions of the Joint Board in whole or part or to reject them, these Recommended Decisions have proven over the years to be an effective way to ensure both that universal service issues receive comprehensive consideration from a large and diverse base of interested parties and that the solutions presented for ultimate FCC consideration have been reviewed and tested by a varied group of federal, regional and state regulators, industry participants and consumer advocates.

5. The Universal Service Fund is one of several federal programs that support buildout of communications facilities. Are current programs at other federal agencies, like the National Telecommunications and Information Administration (which oversaw the Broadband Technology Opportunities Program) or the Rural Utilities Service (which oversees lending programs and oversaw the Broadband Initiatives Program) necessary?

Rural Utilities Service (RUS) loans have long been essential for RLEC network infrastructure deployment and upgrade projects. Whereas federal universal service support helps RLECs to recover, after the fact, the depreciation, maintenance and operating expenses that enable them to repay their outstanding construction loans and provide ongoing services, it is RUS construction loans that have enabled many RLECs to accumulate the large up-front sums they need to undertake substantial infrastructure deployment and upgrade projects -- that is, to purchase network equipment and to hire the contractors to construct and install it. Given that major RLEC infrastructure investments remain necessary to extend and upgrade the Public Broadband Network, the RUS loan programs remain essential during the foreseeable future to facilitate and implement these investments.

As the Committee is well aware, the National Telecommunications and Information Administration's (NTIA's) Broadband Technology Opportunities Program (BTOP) and the RUS's Broadband Initiatives Program (BIP) were limited, one-time grant-loan programs that

were part of the 2009 American Recovery and Reinvestment Act. These grant-loan programs helped their recipients to deploy broadband infrastructure, and many WTA members would be interested in future broadband grant-loan programs that the Congress might adopt. However, unless and until BTOP/BIP or similar grant-loan programs are established on a recurring and predictable basis, such programs will not provide the long-term, comprehensive infrastructure investment incentives and capabilities that the RUS loan programs have produced.

6. How can we ensure that the Universal Service Fund is sufficiently funded to meet its stated goals without growing the fund beyond fiscally responsible levels of spending?

As the FCC noted in its National Broadband Plan, the Public Broadband Network “is the great infrastructure construction project of the early 21st Century.”⁴ Like the earlier canals, roads, railroads, telegraph and telephone networks and interstate highways that both enabled the United States to expand across the continent and brought its people closer together, the extension and upgrading of this network to meet present and future broadband service needs will cost significant amounts of public and private dollars and be well worth the investment.

Given the critical importance of a nationwide broadband network able to meet the increasing capacity and speed needs of American businesses and households, sufficient support for the required network infrastructure investments and service improvements should be near the top of federal budgetary priorities. This does not mean that fiscal caution should be forsaken, but budgets should be based on reasonable end goals and objectives rather than arbitrary numbers that are never reassessed. At a minimum, support levels need to be adjusted for inflation over time. Readily scalable wireline broadband networks and complementary wireless broadband networks in rural areas can increase federal, state and local tax revenues by enabling the creation and growth of new businesses and increasing job opportunities and wages while simultaneously decreasing private and public costs of education, health care and government services. These direct benefits should be considered by policymakers when deciding whether to distribute an additional USF support above the current budget targets to increase the pace of broadband extensions and upgrades in rural areas.

To ensure sufficient funds are available, it is important that federal policymakers reform how USF contributions are collected. The nation’s history with major infrastructure initiatives (e.g.,

⁴ Federal Communications Commission, *Connecting America: The National Broadband Plan*, at 3 (Mar. 16, 2010), <http://www.broadband.gov/download-plan/>

the Interstate Highway System) demonstrates that, as a country, we have the vision and ability to design, build and pay for the facilities and tools necessary to open new markets and drive economic growth and job creation. A properly structured infrastructure funding program, with a fair and equitable system of USF contributions, will lead to increased economic growth, job creation and consumer benefits. Given that the wireline long distance toll service that previously provided a major portion of USF contributions is being superseded and reduced by other technologies and pricing plans, it is becoming more and more urgent to review the services and service providers that benefit from the public network. Broadening the USF contribution base in a more equitable manner will mean not only more money will be available for network infrastructure investment and other endeavors, but also individual contributors will be subject to much lower contribution rates.⁵

The FCC started down this path a few years ago with its April 30, 2012 *USF Contributions Reform Further Notice of Proposed Rulemaking*. In this FNPRM, the FCC asked a number of questions about who should contribute, how contributions should be assessed, how the administration of the contributions system could be improved and how carriers should recover their contributions to the USF from their end-user consumers. The FCC's efforts in this area have stalled, and it would be appropriate for Congress to require the FCC to complete its USF contribution reforms by a specified deadline in 2015.

7. Are all of the funds and mechanisms of the current Universal Service Fund necessary in the modern telecommunications marketplace?

The current USF High Cost Fund mechanisms⁶ and their future revised versions or successors are essential to encourage and enable the basic network infrastructure investment needed to bring the telecommunications and broadband services available in urban areas to Rural America at reasonably comparable speeds and prices. The High Cost Fund provides the investment incentives and cost recovery for the basic underlying networks in rural and other high-cost areas. These networks would not currently exist, and will not exist in the future, without predictable and sufficient High Cost Fund support. While market forces will provide for the communication needs of the majority of the country, there will always be high-cost, rural areas where there is no business case to provide service. Although current High Cost Fund mechanisms need some

⁵ A more in depth examination of this subject can be found in WTA's White Paper, *Investing in Rural Broadband Infrastructure: The Critical Need for Universal Service Contribution Reform*, found here: <http://w-t-a.org/wp-content/uploads/2014/08/USF-Contributions-2014-FINAL.pdf>

⁶ High Cost Loop Support, Interstate Common Line Support, Connection America Fund – Inter-carrier Compensation Support and CAF Phase II Support

updating to take into account the transition from the PSTN to the emerging Public Broadband Network, the High Cost Fund itself remains *the* essential Universal Service Fund for the still numerous rural areas where the costs of constructing and operating the basic underlying public network exceed the revenues that can be generated by the reasonably comparable rates that local residents can afford to pay.

In the absence of the underlying network in rural and other high-cost areas, the other USF Funds would be greatly handicapped if useful at all. The Schools and Libraries Program and the Rural Health Care Program would not be able to connect their supported facilities efficiently and inexpensively into local networks but rather would have to construct lengthy special purpose networks to reach rural schools, libraries and clinics. Likewise, low-income individuals in high-cost areas would not be able to obtain satisfactory service regardless of the amount of Lifeline Program support for which they qualified. Accordingly, the High Cost Fund is the critically important USF program because it supports the underlying network upon which all of the other USF programs ride.

8. In lieu of the current support mechanisms, could any of the programs be better managed or made more efficient by conversion to:

- a. A state block grant program;**
- b. A consumer-focused voucher program;**
- c. A technology-neutral reverse auction; or**
- d. Any other mechanism.**

In the case of the High Cost Program – the USF program on which WTA members rely – the current High Cost support mechanisms would not be better managed or made more efficient by conversion to any of the listed alternatives. While the current USF contribution mechanism clearly needs to be modernized and various changes to USF distribution mechanisms are being considered or implemented at the FCC, transitioning to an entirely new methodology will create needless disruptions and consequences.

First, a state block grant program would suffer from a fatal disconnect between the power to distribute funds and the responsibility for raising them. One of the problems with the previous state commission designations of multiple wireless CETCs to receive “identical support” in RLEC service areas was that some states appeared to look at the process primarily as a way to bring “free” federal money to their states without considering the ultimate impact upon the USF budget. It is a fact of life that efficiency and accountability are increased and waste is reduced

when the same officials or agencies bear responsibility both for raising funds and distributing them.

A consumer-focused voucher program would be a major disincentive to broadband infrastructure investment because it would destroy the predictability and sufficiency of USF support. Given the likelihood that consumers would have the right to decide periodically (month-by-month or year-by-year) the carrier that would receive their voucher support, RLECs and other ETCs would be deprived of the stable USF revenue streams necessary to develop and fund their investment and business plans. Put simply, unpredictable and fluctuating monthly or annual USF revenue streams are wholly incompatible with 20 to 30-year infrastructure investment projects. The virtually certain result of a voucher program would be a cessation of broadband infrastructure expansion and upgrades in areas where carriers rely significantly upon USF revenue streams.

In addition, the amounts of vouchers would be very difficult and politically controversial to determine. If every eligible end user received a voucher in the same amount per month, such vouchers would constitute a windfall in lower-cost service areas and would be insufficient to sustain networks and services in higher-cost areas. On the other hand, if end users in different service areas received vouchers in differing amounts, or if end users in the same service area received vouchers in differing amounts over time, both the FCC and Congress would be inundated by complaints that various constituents were not being treated equally or fairly.

Finally, in regards to technology-neutral reverse auctions, while proponents claim that they can reduce USF support to “efficient” levels, they have yet to be tested over a sufficient period to determine their actual impacts and unforeseen consequences. The prime concern is that some reverse auction participants will have substantial incentives to underbid in order to obtain USF support for the area. This could lead to a race to the bottom, leaving rural residents with an unreliable and underfunded carrier that provides increasingly inferior and outmoded service. In the alternative, Congress and the FCC may be inundated by requests from winning underbidders for waivers to relieve them from the consequences of their strategy and to significantly increase the amount of their actual USF support over the amount that they had bid (and likely in excess of the amounts that some of the losing reverse auction participants had bid). While no one can predict the future with absolute certainty, history and human nature indicate a high probability that underbidding and gaming will be a substantial feature of reverse USF auctions. They will be particularly harmful where an insubstantial and poorly funded underbidder is able to take the

USF support of the carrier that has long served an area and to drive that carrier away before it becomes apparent that the underbidder is not capable of providing quality and affordable service in the longer term.

Conclusion

WTA thanks the Committee for the opportunity to participate in its White Paper process. It looks forward to continuing discussions with the Committee on telecommunications matters, particularly with regard to the legislative and oversight activities that are needed to enable WTA's RLEC members to invest in the extended and upgraded broadband network infrastructure and to obtain the Internet Protocol interconnection arrangements that are required to permit their rural customers to participate in the rapidly emerging Public Broadband Network.

September 19, 2014

The Honorable Fred Upton
Chairman
Committee on Energy and Commerce
House of Representatives
Washington, DC 20515

The Honorable Henry Waxman
Ranking Member
Committee on Energy and Commerce
House of Representatives
Washington, DC 20515

The Honorable Greg Walden
Chairman
Communications and Technology Subcommittee
Committee on Energy and Commerce
House of Representatives
Washington, DC 20515

The Honorable Anna Eshoo
Ranking Member
Communications and Technology Subcommittee
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Dear Chairmen Upton and Walden, Ranking Members Waxman and Eshoo:

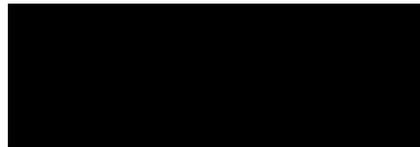
XO Communications (XO) appreciates the continuing opportunity to provide input to the Committee as it contemplates whether changes to the Communications Act of 1934 (“Act”), as amended, are warranted. XO is a facilities-based provider of telecommunications and information services, serving business and wholesale customers in major markets throughout the United States. XO’s foundation and success can be attributed directly to the Telecommunications Act of 1996, which amended the Act and sought to develop and sustain competition in local telecommunications markets. For nearly two decades, XO has been a leading innovator providing cutting edge telecommunications and information services nationwide. Just in the last two years, XO became the first carrier to provide 100 Gigabit backhaul speeds coast to coast, and XO also accelerated the speeds it provides to customers using copper connections to 100 Megabits per second. Even more recently, XO’s Hosted PBX service and WorkTime products have both won industry awards for Product of the Year.

As a provider of interstate telecommunications services, XO supports the goals of the federal universal service fund (“USF”) and believes that ubiquitous access to affordable services are vital to Twenty-First Century communications. XO is also well aware of the challenges with the USF contribution system. Most notably, the USF contribution factor has skyrocketed from 5.6 percent in 2000 to 16.1 percent for the fourth quarter of 2014. This is primarily due to the steady decline in the current assessable revenue base, which places a disproportionate burden on providers of assessable services to contribute support for all funded services, even those from which no contribution is collected. Changes must be made if the universal service programs are to meet their objectives going forward.

XO supports the continued use of revenues as the basis for USF contributions. As the Federal Communications Commission (FCC) found in 1997, end user revenues remain the simplest and fairest basis on which to establish an “equitable and non-discriminatory” allocation of the burden to support

universal service.¹ The challenges with the current revenues-based system are best addressed by broadening the overall revenue base for contributions. Since the USF program was established, the telecommunications market has evolved significantly. The current system disproportionately burdens certain providers because end users have migrated from historically assessable services to new types of services that are not currently assessable. Updating the types of services that are assessable for USF contribution purposes would ensure that all providers of telecommunications make equitable and non-discriminatory contributions toward support of universal service. Such changes can establish a stable USF foundation for years to come.

XO looks forward to working with the Committee as these policy deliberations occur and stands ready to provide reflections upon any proposals for change from its unique perspective as an innovative competitor to the legacy phone companies.



Patrick Thompson
Director, Legislative Affairs
XO Communications

¹ In contrast, other proposed methodologies for assessing USF contributions would require complex new line-drawing, would require the development of new tracking systems and audit capabilities and would not ensure that providers of interstate telecommunications services make equitable and nondiscriminatory contributions to USF, as required under current law.