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June 27, 2022

Via Electronic Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
45 L Street, NE
Washington, DC 20554

RE: Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, WC Docket No. 17-84, Second Further Notice of Proposed Rulemaking, FCC 22-20 (rel. Mar. 18, 2022).

Dear Ms. Dortch:

Thank you for providing R Street Institute the opportunity to comment on this Further Notice of Proposed Rulemaking (FNPRM). As you are aware, on March 16 the Federal Communications Commission (FCC) voted to seek comment on ways to ensure that broadband deployments are efficient and costs are shared between both pole owners and pole attachers. R Street is encouraged that the Commission recognizes the importance of enabling quick and predictable access to poles in order to improve broadband buildout and respectfully submits the following articles for consideration as part of the record:

- Jeffrey Westling, Pole Replacement Explainer, R Street Institute, Apr. 2021. <https://www.rstreet.org/wp-content/uploads/2021/04/explainer23.pdf>
- Jeffrey Westling, “Barriers to Broadband Deployment,” R Street Institute, Nov. 9, 2021. <https://www.rstreet.org/2021/11/09/barriers-to-broadband-deployment>.

As Westling noted: “While subsidies take center stage, it will be critical to take steps to reduce existing barriers to deployment.”¹ The FCC can alleviate a number of burdens to broadband

¹ Jeffrey Westling, Pole Replacement Explainer, R Street Institute, Apr. 2021. <https://www.rstreet.org/wp-content/uploads/2021/04/explainer23.pdf>

through future rulemakings in this proceeding. We look forward to participating in this rulemaking to facilitate FCC action on this important issue.

Most sincerely,

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POLE REPLACEMENT EXPLAINER

April 2021

SUMMARY

- Broadband has become a critical component to the lives of almost all Americans, and policymakers should continue exploring methods of improving adoption and access.
- While most efforts to increase access to broadband focus on direct monetary subsidies, reducing barriers to deployment can help maximize subsidy dollars and incentivize private deployment of critical infrastructure.
- Pole replacement costs present an outweighed barrier to deployment, and action at the federal level has yet to provide the necessary relief.
- States should act quickly to better apportion the costs of replacing the pole between the owner of the pole and broadband providers, as well as extending a cost-sharing regime to all poles.

BACKGROUND

Broadband has become the lifeblood of communities across the nation. Kids complete schoolwork and play games online. Employees can take meetings, share documents and stay organized via tools like Zoom, One-Drive or Asana. Patients can meet virtually with their doctors, ensuring they can get expert medical advice without the additional burdens of travel or perhaps exposure to sick patients.

To help maximize these benefits, policymakers across the country have begun exploring ways to incentivize broadband deployment. Proposals have, thus far, mainly taken the form of direct subsidies. In many communities, there just is not enough potential revenue to justify private deployment. Therefore, public funding can be used to make the business case viable. Other efforts include things like municipally owned broadband networks, though these are often fraught with [potential hazards](#).

In alternative, or even in addition, to a more direct approach to supporting deployment, regulators can also help spur deployment by reducing barriers for private industry. As R Street highlights in its [annual broadband scorecard](#), everything from access to public rights-of-way and construction permitting to local franchising and zoning laws can have a direct impact on a broadband provider's ability to deploy infrastructure. Lowering these barriers to deployment can have a direct impact on broadband deployment.

POLE ATTACHMENTS AND REPLACEMENTS

One key factor in deploying infrastructure is access to utility poles. Under federal [law](#), the Federal Communications Commission (FCC) has the authority to “regulate the rates, terms, and conditions for pole attachments to provide that such rates, terms, and conditions are just and reasonable, and shall adopt procedures necessary and appropriate to hear and resolve complaints concerning such rates, terms, and conditions.” State governments have the authority to opt-out of the federal regime, regulating attachment rates for these poles as well. However, the authority granted to the FCC only extends to investor-owned utilities, not cooperatives or municipally owned utility poles. This has led to [rates significantly higher](#) for access to the infrastructure, with limited ability to rectify the issue at a federal level.

In addition to access to the utility pole, providers bear significant costs replacing the pole. Often, when attaching broadband infrastructure, the existing pole must be replaced because it cannot accommodate the infrastructure. However, the entire cost of the replacement often [falls](#) to the broadband provider, while the value of the replacement goes to the pole owner. The FCC recently clarified that when the replacement is not entirely precipitated on the new broadband infrastructure, the owners must share in the cost of replacement. However, like attachments, the jurisdiction of the Commission is limited and the clarification does not fully provide relief to broadband providers.

NEED FOR STATE ACTION

Providing broadband should remain a key priority for lawmakers. However, direct subsidies for deployment necessarily come from the pockets of the taxpayer, and often can lead to overbuilding and waste. That is not to say that state legislators should consider direct support, but it is critical that barriers to deployment are limited to maximize the value of each dollar spent.

To that end, state legislators should explore cost-sharing regimes for pole replacements.

Pole replacement costs have become a significant barrier to deployment, especially in rural areas. During one deployment project in New York, Charter Communications found that pole replacement costs constituted [25 percent](#) of the total costs. For rural areas where the business case for deployment is already a difficult proposition for broadband providers, the additional costs of replacing poles will only leave more communities unserved. While the FCC has taken steps to clarify the existing regime, it has yet to provide fully the necessary clarity and the regime only applies to investor-owned utilities.

States can take the next step by requiring all pole owners to share the costs of replacing utility poles, especially in rural areas. Specifically, The Internet & Television Association (NCTA) [suggests](#) that “the new attaching entity should be the remaining net book value of the pole being replaced.” By carefully allocating these costs for all utility poles, broadband providers will face less cost when physically deploying the networks. This, in turn, makes more communities and neighborhoods profitable for deployment. With increased competition, consumers will have more options at lower costs.

CONCLUSION

Broadband is more important than ever. Policymakers around the country should continue to explore different avenues for increasing access to high-speed connections. While subsidies take center stage, it will be critical to take steps to reduce existing barriers to deployment. Pole replacements currently present such a barrier, and state legislators across the country should take steps to share the costs between pole owners and broadband providers more equitably.

CONTACT US

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🕒 NOV 9, 2021

Barriers to Broadband Deployment

Admittedly, too often we talk about removing barriers to broadband deployment, but fail to go deeply into what those barriers actually look like. Still, government intrusion into broadband markets can limit investment and stifle deployment. Reducing these barriers has already led to significant [benefits \[1\]](#) for American consumers, and there remains work for us to do to facilitate competition and investment in our broadband networks.

At the same time, we also remain cognizant that market forces alone, even with no barriers from the government, will fail to see [universal access \[2\]](#) as some communities just don't present a business case for deployment. If universal service is truly a goal that we as a country wish to stride for,

subsidization will remain a key aspect of the deployment process. Even in these cases, however, removing barriers will maximize the value [3] of each subsidy dollar spent, meaning markets can work to their fullest extent while limiting the burden on taxpayers when they fail.

This post provides a high-level overview of these barriers, as well as the steps we can take to limit their impact on efficient market deliberations.

Broadband Classification Issues

No issue in the field of broadband regulation garners more attention [4] than network neutrality. The internet connects people across the globe, and users hold the idealist version of connectivity—free and open space without intervention from the provider—as a key pillar. While this view doesn't necessarily mesh with the practical functionality of the provision broadband service, almost everyone can agree on the core principles [5] that internet service providers (ISPs) shouldn't block lawful traffic and should be transparent about their network management practices.

However, this focus on the principles of net neutrality obfuscates the bigger issue: the classification of broadband under the Communications Act [6]. The Communications Act doesn't really envision a regulatory structure for broadband, and instead the Federal Communications Commission (FCC) has tried to fit regulations into one of two separate titles. Title I classification covers so-called information services, and essentially limits how far the FCC can go to dictate practices and impose net neutrality protections. Previous commissions tried to impose net neutrality regulations under Title I, but courts [7] found the regulations in question bridged too closely to common carrier regulation beyond the scope of Title I. Instead of pulling back on some of the requirements to fit in with Title I, in 2015 the Commission simply reclassified [8] broadband as a Title II Telecommunications Service. Title II governs utility telephony service, and allowed the Commission to go much further than it could under Title I.

Many proponents [9] of a Title II classification argue that the additional authority is needed to protect net neutrality, as the courts have previously struck down regulations that veered too far into Title II like regimes without actually reclassifying the service. But Title II grants much more authority to the Commission than what would be required to impose net neutrality rules; it comes with utility regulation far beyond the basic tenets of network neutrality such as privacy [10] and rate regulation [11].

In 2017, the Commission reclassified [12] broadband as a Title I service, and tasked the Federal Trade Commission (FTC) to be the cop on the beat to enforce the net neutrality principles. This light touch approach to broadband regulation has led to significant investment [13] in American networks and the growth of an online ecosystem which is the envy, and oftentimes target, of the world. With the new administration, calls for reclassification will almost inevitably once again spur action at the Commission. It will be important for policymakers to separate out the issue of net neutrality from the issue of broadband classification as a whole. A Title I regime could still provide the necessary protections that many seek while not imposing strangling uncertainty and costs on providers as we navigate the forbearance and application of different Title II obligations. But even more, Congress could step in to provide guidance [14] here, as it can impose net neutrality protections without requiring the FCC to reclassify broadband and opening up the entire industry to utility style regulation designed for voice telephony.

Siting Issues

To deploy broadband infrastructure, providers need access to public rights-of-way, and the infrastructure along them, to attach equipment and connect network elements. This takes a variety of forms.

First among them are generalized access [15] to the public rights-of-way. Localities often allow access to the public rights-of-way via local franchising or permitting processes. With this authority comes fees from the local government, which often serve as a major cost to network providers as they build out networks. There can be little doubt that a local government has the authority to regulate the uses of public infrastructure within its jurisdiction, and these regulators need to charge fees for its management. However, all too often these fees drastically exceed the costs of the local government.

These challenges are compounded with the deployment of new, 5G networks which rely heavily on the densification [16] of networks with small wireless facilities. These facilities allow for much more capacity, but also provide less geographic coverage per antenna due to the propagation characteristics of the higher frequency operations. As providers begin to deploy these networks, it will be critical for local governments to limit the costs per facility, and ideally put a hard cap on the fees they charge. The FCC has taken steps to limit these costs, but states continue to have a major role to play in this area.

Wireline providers face similar challenges. One key challenge is the pole attachment rates for non-privately owned infrastructure. The Telecommunications Act [17] created a standardized regime for pole attachments, requiring investor-owned utilities (IOUs) to offer reasonable rates, terms and conditions for pole access. However, IOUs only present a portion of available poles, and often the

poles are owned by electric cooperatives or municipalities outside the jurisdiction of the FCC's pole attachment regime. Extending this regime to non-IOU poles would ensure that providers can attach wires to poles without excessively burdensome costs placed by the pole owners, especially in areas where the local government may own its own broadband network.

Similarly, for both wireline and wireless providers, oftentimes a pole needs replacement to support additional attachments/collocations. When this occurs, the attaching provider normally bears the entire cost [18] of replacing the pole, and yet the pole owner receives the entire benefit. This isn't necessarily a problem, but all too often the pole needs replacement because it already is nearing the end of the useful lifespan and would need replacement regardless. Unfortunately, providers have found this to be a major barrier [19] to deployment, especially in rural areas in which the costs for deployment make the business case difficult. While the Commission did pass some reforms [20], Congress should step in to resolve this issue once and for all by equitably sharing the cost among pole owners and the entities utilizing the infrastructure.

Access to Spectrum

When we talk about spectrum regulation [21], what we really mean is coordinating operations to prevent harmful interference among differing services. To achieve this, federal regulators grant operators the legal right to operate subject to specific restrictions to ensure operations can co-exist.

Like with most things, markets [22] present the optimal way of allocating and assigning these operating rights, and the Commission has embraced a market-oriented approach to spectrum management with unlicensed operations to provide a backstop for entities which need bandwidth to develop innovative services. Ideally, the Commission should continue building on the recent work of the Pai FCC [23] to lower the transaction costs for secondary market deals.

Most notably, this comes in the form of the FCC's disaggregation and partitioning rules [24]. For example, if a firm has a license to operate in a specific band, separating out either a geographic region or frequency range requires Commission approval and costs money to do. On the back end, re-aggregating those rights likewise costs time and money. These additional costs distort the value of the license and disincentivize parties from engaging in the secondary market. As a result, the limited operating rights lay fallow. Regulators should continue to streamline these processes and minimize the costs of engaging in the secondary market.

Another critical spectrum management barrier is the lack of incentives [25] for federal operators to make available additional bandwidth, as well as delaying any proceeding that could theoretically affect their operations. At the core of the issue, the FCC's jurisdiction does not extend to federal operators, and instead the Commission must work with the National Telecommunications and Information Administration (NTIA) to ensure federal and non-federal operations can coexist. Unlike private licensees, federal operators do not pay market rates for licenses and lack incentives to use less bandwidth—and thereby make available portions of their existing assignments. While these agencies engage with the Commission during proceedings, federal operators often try to throw a wrench into the processes even after a final decision to avoid any intrusion into their operations. Unfortunately, these actions add additional uncertainty into spectrum auctions, lowering the value of the associated rights and ultimately delaying deployment of networks and services.

Operating rights will continue to be a critical input for broadband networks, especially as technologies and services continue to merge. It will be critical for regulators to minimize the transaction costs associated with secondary markets, as well as freeing up additional federal bandwidth for private use.

Subsidization Considerations

Even in a world in which regulators remove every barrier to broadband deployment, the market will simply not reach some communities around the country for which the return on investment does not justify costs of deployment. As a result, these areas will continue to require subsidization to achieve universal access. Considering the costs of subsidization, however, this approach could lead to significant waste of taxpayer dollars if not done correctly. Therefore, subsidy programs should be targeted on truly unserved areas and take a technology-neutral approach to deployment.

For example, in recent negotiations around a bipartisan infrastructure package, some had suggested [26] that subsidy dollars could go to both “unserved” and “underserved” locations. While improving the quality of the broadband connection is important, the value [27] of broadband connection stems from gaining that initial access and the opportunities it provides. After obtaining a basic connection, the relative increase in value of a higher speed tier diminishes as the speeds get higher. As we consider subsidizing deployment, Congress and local lawmakers should instead focus on those truly unserved areas, rather than increasing the speed requirements of communities with existing coverage.

Similarly, many advocates [28] called for symmetrical 100 megabits per second (Mbps) upload and download speeds for new networks, all but requiring fiber to the home (FTTH). However, for many communities FTTH just doesn't make sense [29] financially, and new innovative technologies like fixed

wireless could provide comparable quality even without the 100 Mbps upload. If regulators subsidize deployment, it will be important not to select specific technologies and force them to become the standard for all networks regardless of the specific needs of a given community.

Government-Owned Networks

Often, local governments want to get into the broadband business themselves. While this can take different forms, the locality leverages the existing infrastructure from a municipally owned electric utility to start providing broadband service. On a surface level, this can make some sense, but digging a little deeper these types of government-owned networks (GONs) often end up presenting another barrier to private deployment.

For a private broadband provider, any deployment comes with risk. Companies take that risk when they can see a return on the investment. However, GONs are a subsidized competitor in the space, adding another firm into the market. Many markets have an equilibrium number [30] of firms, and the GON upsets this balance by entering the market. This, combined with often streamlined processes and cheaper access to public rights-of-way can place private firms at a disadvantage, especially when the law governing GONs in a specific state does not prohibit cross-subsidization [31]. In practice, this means that captive rate payers on the utility side of the business subsidize the rates on the competitive broadband side. So even though consumers will pay more overall, the price of broadband from the GON could be lower than what a private business could charge and still make a profit. When deciding whether to invest into a project, then, the additional risk may make the decision for the company and force them out of the market.

Some may see this as a net positive; after all the GON may not have the same profit-maximizing incentives as a private business. But as this post has highlighted, the broadband business is a costly one, and networks need constant investment to ensure they remain operational and capable of supporting advanced services. Without private investment, these communities will likely fall further behind and the digital divide will grow. Regulators should instead look for ways to work with private providers to bring broadband to areas that the market alone has failed, and public-private [32] partnership models could be used in these difficult cases.

Final Thoughts

As we look toward policy priorities for 2022, regulators should prioritize eliminating additional barriers to broadband deployment. These take a myriad of forms, but all impact Americans and our ability to connect to each other online. Meaningful reforms in these areas will be critical to continue

to promote investment in our networks to ensure the benefits of the 21st century are realized.

Image credit: [Pink Badger](#) [33]

Endnotes

1. "[benefits](https://www.rstreet.org/2020/05/13/hearing-on-the-state-of-broadband-amid-the-covid-19-pandemic/)": <https://www.rstreet.org/2020/05/13/hearing-on-the-state-of-broadband-amid-the-covid-19-pandemic/>
2. "[universal access](https://itif.org/publications/2021/03/22/how-bridge-rural-broadband-gap-once-and-all)": <https://itif.org/publications/2021/03/22/how-bridge-rural-broadband-gap-once-and-all>
3. "[value](https://www.rstreet.org/2021/08/03/keeping-up-with-the-congress-the-good-and-bad-of-the-broadband-infrastructure-package/)": <https://www.rstreet.org/2021/08/03/keeping-up-with-the-congress-the-good-and-bad-of-the-broadband-infrastructure-package/>
4. "[attention](https://www.usatoday.com/story/tech/talkingtech/2017/05/09/john-oliver-may-have-helped-spur-150000-comments-fcc-net-neutrality/101480100/)": <https://www.usatoday.com/story/tech/talkingtech/2017/05/09/john-oliver-may-have-helped-spur-150000-comments-fcc-net-neutrality/101480100/>
5. "[core principles](https://www.rstreet.org/2019/02/25/r-sheet-on-net-neutrality/)": <https://www.rstreet.org/2019/02/25/r-sheet-on-net-neutrality/>
6. "[Communications Act](https://transition.fcc.gov/Reports/1934new.pdf)": <https://transition.fcc.gov/Reports/1934new.pdf>
7. "[courts](https://www.cadc.uscourts.gov/internet/opinions.nsf/3af8b4d938cdeea685257c6000532062/$file/11-1355-1474943.pdf)": [https://www.cadc.uscourts.gov/internet/opinions.nsf/3af8b4d938cdeea685257c6000532062/\\$file/11-1355-1474943.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/3af8b4d938cdeea685257c6000532062/$file/11-1355-1474943.pdf)
8. "[reclassified](https://www.fcc.gov/document/fcc-releases-open-internet-order)": <https://www.fcc.gov/document/fcc-releases-open-internet-order>
9. "[proponents](https://ecfsapi.fcc.gov/file/107180046918671/final%20final.pdf)": <https://ecfsapi.fcc.gov/file/107180046918671/final%20final.pdf>
10. "[privacy](https://www.law.cornell.edu/uscode/text/47/222)": <https://www.law.cornell.edu/uscode/text/47/222>
11. "[rate regulation](https://www.law.cornell.edu/uscode/text/47/201)": <https://www.law.cornell.edu/uscode/text/47/201>
12. "[reclassified](https://www.fcc.gov/document/fcc-releases-restoring-internet-freedom-order)": <https://www.fcc.gov/document/fcc-releases-restoring-internet-freedom-order>
13. "[significant investment](https://republicans-energycommerce.house.gov/news/blog/report-broadband-investment-continues-to-skyrocket/)": <https://republicans-energycommerce.house.gov/news/blog/report-broadband-investment-continues-to-skyrocket/>
14. "[guidance](https://morningconsult.com/opinions/democrats-please-end-the-long-national-net-neutrality-nightmare/)": <https://morningconsult.com/opinions/democrats-please-end-the-long-national-net-neutrality-nightmare/>
15. "[access](https://www.rstreet.org/2021/02/10/2020-broadband-scorecard-report/)": <https://www.rstreet.org/2021/02/10/2020-broadband-scorecard-report/>
16. "[densification](https://docs.fcc.gov/public/attachments/DOC-354086A1.pdf)": <https://docs.fcc.gov/public/attachments/DOC-354086A1.pdf>
17. "[Telecommunications Act](https://www.law.cornell.edu/uscode/text/47/224)": <https://www.law.cornell.edu/uscode/text/47/224>
18. "[entire cost](https://www.rstreet.org/wp-content/uploads/2021/04/explainer23.pdf)": <https://www.rstreet.org/wp-content/uploads/2021/04/explainer23.pdf>

19. "major barrier": <https://policy.charter.com/blog/rural-broadband-solutions-quickly-close-gap>
20. "some reforms": <https://docs.fcc.gov/public/attachments/DA-21-78A1.pdf>
21. "spectrum regulation": https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2943502
22. "markets": <https://www.rstreet.org/2018/06/18/the-roles-of-markets-in-spectrum-policy/>
23. "Pai FCC": <https://www.fcc.gov/document/pai-remarks-future-american-spectrum-policy>
24. "disaggregation and partitioning rules": <https://www.rstreet.org/2019/05/31/comments-on-partitioning-disaggregation-and-leasing-of-spectrum/>
25. "incentives": <https://www.rstreet.org/2021/10/04/rivalrous-regulators-historical-analysis-of-the-dual-agency-approach-to-spectrum-management/>
26. "suggested": <https://www.rstreet.org/2021/08/03/keeping-up-with-the-congress-the-good-and-bad-of-the-broadband-infrastructure-package/>
27. "value": <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/process-and-operations/us-broadband-for-all-economic-growth.pdf>
28. "advocates": <https://www.eff.org/deeplinks/2021/07/future-symmetrical-high-speed-internet-speeds>
29. "make sense": <https://itif.org/publications/2021/05/12/refining-biden-broadband-proposal>
30. "equilibrium number": http://www.fclj.org/wp-content/uploads/2021/01/73.1.1_Municipal-Broadband-Article-Final-Proof.pdf
31. "cross-subsidization": <https://www.phoenix-center.org/PolicyBulletin/PCPB53Final.pdf>
32. "public-private": <https://www.ustelecom.org/government-broadband-networks-arent-built-for-the-long-haul/>
33. "Pink Badger": https://stock.adobe.com/contributor/200963876/pink-badger?load_type=author&prev_url=detail



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