

REFORM PROPOSALS FOR BROADBAND POLICY IN PENNSYLVANIA

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Good morning, Chair Phillips-Hill, Minority Chair Santasiero, and distinguished members of the Senate Communications and Technology Committee:

My name is Brent Skorup, and I am an attorney and senior research fellow at the Mercatus Center at George Mason University. I also serve on the Broadband Deployment Advisory Committee of the Federal Communications Commission (FCC).

It is commendable that state legislatures, governors, and cities around the country, including in Pennsylvania, are prioritizing broadband deployment. Lawmaker focus should remain on the pressing broadband issues of competition, deployment, and adoption.

No one can accuse the government of doing nothing about rural telecommunications services. The federal government has spent more than \$100 billion on rural telecommunications in the past 20 years.¹ (All dollar amounts in this testimony are in 2018 dollars.) Most of that total comes from the federal Universal Service Fund (USF), which disburses about \$4.5 billion annually to rural providers across the country.² In addition, the Pennsylvania Universal Service Fund redistributes about \$32 million annually from Pennsylvania phone customers to Pennsylvania phone companies serving rural areas.³

Are rural residents seeing commensurate benefits trickle down to them? That seems doubtful. These programs are complex and disburse subsidies in puzzling and uneven ways. Reform of rural telecommunications programs is urgently needed. FCC data suggest that the current USF structure disproportionately penalizes Pennsylvanians—a net \$800 million left the state from 2013 to 2017.

I offer a few recommendations to bring broadband deployment to rural areas while preserving competition and fiscal restraint. Pennsylvania lawmakers should consider the following:

- Urge the FCC to transform the USF into broadband vouchers for rural households.

¹ Scott Wallsten and Lucia Gamboa, *Public Investment in Broadband Infrastructure: Lessons from the U.S. and Abroad* (Washington, DC: Technology Policy Institute, 2017).

² The high-cost fund amounted to about \$4.7 billion in 2017. Federal Communications Commission, *Universal Service Monitoring Report*, 2018, 18, table 1.9.

³ Pennsylvania Public Utility Commission, “PA Universal Service Fund,” accessed September 12, 2019, http://www.puc.state.pa.us/utility_industry/telecommunications/pa_universal_service_fund.aspx.

- Prevent unreasonable restrictions on small, outdoor antennas on private property.
- Instruct the state broadband advisory committee to recommend best practices for rural towns and counties.
- Create a “vertical assets inventory” for wireless providers to use in rural areas.

THE FEDERAL UNIVERSAL SERVICE FUND IS POORLY DESIGNED AND DISPROPORTIONATELY PENALIZES PENNSYLVANIANS

The USF was established by Congress in 1996 to make telecommunications services broadly available via intraindustry subsidies.⁴ Telecommunications operators are required to contribute to the USF, which they do by imposing fees on their subscribers. These fees are collected and disbursed by the Universal Service Administrative Company according to general principles set out by Congress and the FCC. Many of the problems with the USF result from its complex and industry-specific structure and disbursement mechanisms. Almost since its creation, the USF has been dogged by waste and fraud issues.⁵ There are better ways to structure telecom subsidies.⁶

Despite several reforms, the USF is unwieldy and dispenses subsidies unequally. The amount of high-cost funds disbursed per rural household varies immensely by state. In 2017, for instance, subsidies were most generous in Alaska, amounting to over \$2,200 per rural household.⁷ Pennsylvania was near the bottom: USF subsidies were about \$63 per rural household that same year.⁸ At the bottom was Rhode Island: subsidies per rural household were about 75 cents that year.⁹ Certainly some variance is to be expected given geography, but \$2,200 per rural household in one state and 75 cents per rural household in another are one example of USF distortions that beg for an explanation and reform.¹⁰

Too many distortions are baked into the existing USF programs. Perhaps more concerning is that Pennsylvanians are disproportionately penalized by the structure of these programs. Though tens of millions of dollars flow from the USF to carriers serving rural customers in Pennsylvania every year,¹¹ Pennsylvanians pay far more into the USF than they receive. According to FCC records, in the five-year period 2013 to 2017, on net, over \$800 million has left the state to be disbursed to telecommunications providers in other states.¹²

⁴ 47 U.S.C. § 254 (2018).

⁵ Scott Wallsten, *The Universal Service Fund: What Do High-Cost Subsidies Subsidize?* (Washington, DC: Technology Policy Institute, 2011).

⁶ As economists Jerry Hausman and Howard Shelanski have said in a review of USF objectives, “It is well established that targeted subsidies paid from general income tax revenues are often the most efficient way to fund specific activities.” Jerry Hausman and Howard Shelanski, “Economic Welfare and Telecommunications Regulation: The E-Rate Policy for Universal Service Subsidies,” *Yale Journal on Regulation* 16, no. 1 (1999): 33.

⁷ This is calculated by dividing the amount of high-cost support in Alaska, about \$206 million, by the approximate number of rural households, 91,000.

⁸ This is calculated by dividing the amount of high-cost support in Pennsylvania, about \$69 million, by the approximate number of rural households, 1.1 million.

⁹ This is calculated by dividing the amount of high-cost support in Rhode Island, about \$30,000, by the approximate number of rural households, 40,000.

¹⁰ For example, Alabama and Mississippi have similar geographies and rural populations, but Alabama carriers received, on a per-rural-household basis, only about 20 percent of what Mississippi carriers received in 2016. Brent Skorup, “Tech Vouchers: Putting Consumers in Control of the FCC’s \$4.5 Billion Rural Telecom Fund,” *Technology Liberation Front*, August 27, 2018.

¹¹ Pennsylvania operators received about \$79 million in high-cost funds in 2016 (2018 dollars). The total amount in rural high-cost support disbursed in Pennsylvania since 1998 is about \$1.2 billion (2018 dollars). These numbers are the total rural high-cost disbursements from 1998 to 2011. The totals from 2012 to 2016 are the total high-cost disbursements because, starting in 2012, the Universal Service Administrative Company no longer broke out the rural and nonrural high-cost components.

Universal Service Administrative Company, “Annual Reports,” accessed September 12, 2019, <https://www.usac.org/about/tools/publications/annual-reports/default.aspx>.

¹² In 2017, about \$190 million left the state. Federal Communications Commission, *Universal Service Monitoring Report*, 2018, 18, table 1.9. In 2016, about \$200 million left the state. Federal Communications Commission, *Universal Service Monitoring Report*, 2017, 18, table 1.9. In 2015, about \$185 million left the state. Federal Communications Commission, *Universal Service Monitoring*

This year alone, Pennsylvania residents will pay about \$400 million in USF fees.¹³ About half of that will return to Pennsylvania as subsidies to telecom providers participating in the four USF programs. The remaining \$200 million, however, will be spread to other states for USF objectives.

To put those numbers in context, if that \$400 million remained in the state, the legislature could give all 1.1 million rural households in Pennsylvania a \$360 voucher to reduce their broadband bill every year, or \$30 per month.¹⁴

RECOMMENDATIONS TO ACCELERATE BROADBAND DEPLOYMENT

URGE THE FCC TO TRANSFORM THE USF RURAL PROGRAM INTO A RURAL BROADBAND VOUCHER PROGRAM

State officials and the Public Utility Commission should urge flexibility from the FCC in spending high-cost USF funds on rural households in their states. Millions of dollars are flowing into the state for rural telecom services but could be better targeted. Rural broadband vouchers would go a long way to leveling the competitive playing field and getting funds into the hands of rural customers, in contrast to current federal policy, which only indirectly benefit rural households. Admittedly, a major reform like this will receive resistance from regulators and carriers. However, the USF rural program appears to be less and less effective at its purpose.¹⁵ In my 2018 analysis submitted to the Montana Public Service Commission, I found that the USF rural program was disbursing 40 percent more in subsidies to Montana carriers, despite a 30 percent decrease in subscribers. I expect that other states see similar trends.

PREVENT UNREASONABLE RESTRICTIONS ON SMALL, OUTDOOR ANTENNAS ON PRIVATE PROPERTY

The state should prohibit unreasonable restrictions from cities and homeowners' associations when homeowners seek to install small, outdoor broadband antennas on their private property. The FCC's over-the-air-reception-device rules, which prohibit similar restrictions on TV antennas and satellite dishes, are a good model.¹⁶ In most cases, unless there's a safety reason or a historical site involved, the FCC prohibits fees and permitting requirements on outdoor TV devices. The FCC is considering extending its rules to small outdoor broadband antennas,¹⁷ but its power over cities and homeowners' associations is limited. States can more directly implement similar reforms because states regulate cities and define property rights. This is a potentially powerful reform that helps wireless providers deploy equipment. Starry, a fixed wireless provider, said that if this reform were enacted nationwide, the company could cover an additional million homes with gigabit-capable broadband in the next year alone.¹⁸

Report, 2016, 18, table 1.9. In 2014, about \$140 million left the state. Federal Communications Commission, *Universal Service Monitoring Report*, 2015, 18, table 1.9. In 2013, about \$150 million left the state. Federal Communications Commission, *Universal Service Monitoring Report*, 2014, 18, table 1.9.

¹³ In 2017, the most recent year the data are available, Pennsylvania residents contributed \$397 million to the USF. Federal Communications Commission, *Universal Service Monitoring Report*, 2018, 18, table 1.9.

¹⁴ Pennsylvania has about 2.7 million residents in rural areas and averages about 2.45 people per household. Census Bureau, "Geography Program," August 25, 2017, <https://www.census.gov/geo/reference/ua/urban-rural-2010.html> (used to determine the rural population per state); Daphne Lofquist et al., "Households and Families: 2010" (2010 Census Brief No. C2010BR-14, Census Bureau, Washington, DC, April 2012) (used to determine the average people in a household per state).

¹⁵ Brent Skorup, "Montana Should Urge Scrutiny and Reform of the Universal Service Fund Subsidy Programs" (Public Interest Comment, Mercatus Center at George Mason University, Arlington, VA, January 31, 2018).

¹⁶ Restrictions Impairing Reception of Television Broadcast Signals, Direct Broadcast Satellite Services or multichannel multipoint distribution services, 47 C.F.R. § 1.4000 (2017).

¹⁷ Updating the Commission's Rule for Over-the-Air-Reception Devices, 84 Fed. Reg. 18757 (proposed May 2, 2019).

¹⁸ Starry, *Comments of Starry, Inc.*, June 3, 2019, <https://ecfsapi.fcc.gov/file/106042703207601/Starry%20OTARD%20NPRM%20Comments%20FINAL%20060319.pdf>.

INSTRUCT THE STATE BROADBAND ADVISORY COMMITTEE TO RECOMMEND BEST PRACTICES FOR RURAL TOWNS AND COUNTIES

Several states and the FCC have created broadband advisory committees in recent years to get a grasp on existing state and federal telecom programs in order to scrutinize and modernize them. This body recently followed suit with the creation of a broadband advisory committee. A statewide committee also provides a venue for city, county, and state officials to share best practices, and hopefully the new committee will look to other examples of similar efforts. For example, the FCC's Broadband Deployment Advisory Committee has several recommendations for states and localities to improve broadband deployment.¹⁹ Of particular interest may be the broadband deployment reports from Michigan and Arkansas that, among other things, crowdsource information from state, city, and county leaders about ways to improve rural deployment.²⁰

CREATE A "VERTICAL ASSETS INVENTORY" FOR WIRELESS PROVIDERS TO USE IN RURAL AREAS

The idea for a vertical assets inventory came from Michigan's broadband report. Some rural counties and cities wanting to make it easier for small fixed wireless providers to install facilities started creating vertical asset inventories—of towers, public buildings, water towers, grain silos, etc.—so that providers could have a one-stop-shop when looking for good siting opportunities. An inventory makes it easier for providers to find accessible and low-cost infrastructure for deployment.

CONCLUSION

A lot has been done at the federal and state level to stimulate rural broadband buildout in Pennsylvania. Hundreds of millions of dollars have been spent in the state, and countless hours have gone into creating, operating, and auditing the subsidy programs. Broadband networks and the marketplace have changed dramatically since 1990s, when state and federal universal service programs were created; the laws and programs should change too. The reforms recommended are not easy, but they will empower providers and customers to bring broadband networks further, faster.

Thank you for the opportunity to speak to you today. I look forward to answering any questions.

¹⁹ Federal Communications Commission, "Broadband Deployment Advisory Committee," accessed September 12, 2019, <https://www.fcc.gov/broadband-deployment-advisory-committee>.

²⁰ Michigan Infrastructure Commission, *Michigan Broadband Roadmap*, August 2018; Office of Arkansas Governor Asa Hutchinson, *Arkansas State Broadband Plan*, May 15, 2019. Along those lines, Pennsylvania's Broadband Investment Incentive Program looks promising. Governor Tom Wolf, "Pennsylvania Broadband Initiative," accessed September 12, 2019, <https://www.governor.pa.gov/about/broadband/#news>.