

Good morning and thank you for the opportunity to discuss Rural Broadband with the Senate Communications and Technology Committee. My name is Jim D'Innocenzo and I am the Vice President for State Government, Legislative and Regulatory Affairs in the North East Division of Comcast with responsibility for Pennsylvania and Ohio.

Comcast is the leading provider of cable, entertainment and communications products and services in Pennsylvania and the nation. Primarily the cable division of Comcast (also known as Xfinity) is involved in the development, management and operation of broadband fiber optic networks and the delivery of programming content. We continually develop and deploy a range of new technologies and programming as part of our ongoing effort to improve the services we offer to our customers in approximately 1,400 Pennsylvania municipalities in parts of 46 of Pennsylvania's 67 counties.

Here in Pennsylvania, we have made over five (5) Billion dollars in technology and infrastructure investments in the last 7 years alone. Our fiber optic rich network encompasses over forty-two thousand (42,000) miles in the Commonwealth and we pass more than four (4) million homes and hundreds of thousands of businesses.

Comcast has increased broadband speeds at no additional cost to our customers 17 times in the last 18 years. Our service plans deliver speeds from 15 Mbps (megabits per second) up to 2 Gbps (gigabits per second) for residential customers and up to 100 Gbps for business customers. Nearly every home and business that our network passes in the Commonwealth has access to 1 Gbps.

I caution you as policy makers not to be confused regarding adoption versus availability. Just because it is available doesn't mean that people will subscribe to the service. In fact, several recent studies show that nearly 20 percent of the homes that have access to HSI (High Speed Internet) do not purchase it at any speed.

Comcast continually looks for areas in the Commonwealth to expand and upgrade our network. In May of this year, we announced the completion of the expansion and a significant upgrade of our network in Somerset and Fayette Counties. Current and prospective customers now have access to all Xfinity services, including Xfinity Internet, the Xfinity X1 video platform, Xfinity Home, Xfinity Voice and Xfinity Mobile.

This project, part of Comcast's ongoing commitment to continue investing in its network and the customer experience, passes approximately 2,500 rural homes with 179 miles of new fiber construction. This upgrade and expansion applies to all current and prospective customers in Fayette County and five municipalities in western Somerset County, most of Somerset County was upgraded between 2014 and 2018. Businesses in these areas will also have access to the full suite of Comcast Business products and services, including Ethernet network speeds up to 100 Gigabits-per-second.

In addition to these investments, Comcast recently extended its fiber network approximately two miles to reach North Star Industrial Park in Boswell Borough and Jenner Township in Somerset County.

And finally, during the last 2 years (2017, 2018) Comcast has extended our Pennsylvania network by an average of over 700 miles and more than 33,000 additional homes/businesses passed each year.

So, you may be asking yourself, if you can do that there why not everywhere. The answer is simple yet complicated. We are a publicly traded company and have a fiduciary responsibility to our shareholders. In the areas of expansion, the ROI (return on investment) was a positive number. As you know the cost to service a customer in less dense areas is significantly more expensive, and the ROI is a negative number regardless of how far out in time you model. Therefore public/private partnerships are needed for many rural broadband expansion projects.

Bringing broadband service to Pennsylvanians in unserved communities is a vital goal. To achieve this end, we need to start with an accurate, scientific understanding of where broadband exists today.

Most importantly, we need to get mapping correct. It is no secret that current mapping at the FCC is flawed. Current mapping counts an entire census block as being served if one home or business in the census block is served. In rural areas a census block can contain a large swath of geography. However, there are discussion in US House and Senate and at the FCC regarding shape files and crowd source mapping which many believe will provide a more accurate picture of where service is available and at what speeds.

Again, I urge you...do not conflate adoption vs available speed as the recent report "Broadband Availability and Access in Rural Pennsylvania did.

Let's look at some cold hard facts:

More than 95 percent of the 5 million homes in Pennsylvania have cable broadband access, and nearly 99 percent of those residences are offered Internet speeds of up to 1 Gigabit. However, many customers choose to purchase service tiers that are slower than the fastest service available in their area. For example, a person could choose to buy a 10 mbps service because it is sufficient to meet their needs, even if a 25 mbps service is available. To be clear, broadband is available to these people and they have adopted the service, but they purchase service at less than the fastest speeds available to them.

Some key principles that I would advocate with any rural broadband funding program:

- No such thing as an underserved area – one is served with HSI as defined by the FCC (25 mbps download and 3 mbps upload) or not served.
- 96 percent of all homes in Commonwealth have access to speeds of equal to or greater than the FCC's threshold of 25/3 for advance telecommunications services.
- Let's not conflate adoption speed with available speed – it does nothing to further the advancement of rural broadband nor does it help policy makers focus on using limited resources to get broadband to unserved areas.

- *Target truly unserved areas:* a program needs to clearly define “unserved” as a census block without access to wireline or fixed wireless broadband service available at a reasonable speed threshold, such as 25/3, and take into account funding and/or plans that are already in the pipeline for a particular area.
- *Dedicated state funding:* funds should come from general appropriations or bonds and not from taxes or fees levied on providers or consumers of communications services.
- *Technology neutral & level playing field:* any broadband infrastructure program/fund should be open to all technologies and all providers. Any technology that works and efficiently solves the problem should be eligible to participate, including wireless, fiber, cable, and satellite.
- *Competitive bidding process:* states should award funds on a competitive bidding or “reverse auction process”.
- *Ongoing transparency & accountability:* a state must establish a mechanism for transparency and accountability in the program to ensure that it remains clear who is receiving funds and how goals are being achieved.
- *Prohibition of additional regulatory burdens:* No additional regulatory burdens shall be placed on a company using rural broadband funds, such as open networks, owned by a local/state government etc.
- *Prohibition on use of funds:* No funds shall be used to overbuild an area that has access to HSI with speeds equal to or greater than 25/3.

I believe that Senator Langerholc’s SB 835 - Unserved High-Speed Broadband Funding Pilot Program Act, encompasses these key principles and I offer our support for its passage.

I thank you for the opportunity to be with you today and I look forward to working with the Committee and all stakeholders to further the dialogue and assist in advancing rural broadband in the Commonwealth.