Responses to Written Questions Submitted by Honorable Todd Young for Honorable Michael Powell

Question 1. Mr. Powell, your testimony highlighted an issue that is a priority for me and my constituents: rural broadband. Can you discuss more about what your members are doing to ensure that communities across the country have access to broadband and the many services it enables?

Response. NCTA's members are expanding the reach of their networks, including through the use of innovative technologies, to bring the benefits of broadband as rapidly as possible to all Americans, including those in rural America. Today, thanks to cable's continued investment, 93% of the country has access to high-speed cable broadband. Median cable broadband speeds are at 100 Mbps, and speeds in many areas, including rural areas, reach 1 Gig. Comcast last fall announced that it offers gigabit broadband to nearly all of the company's 58 million homes and businesses passed in 39 states and the District of Columbia, achieving this goal by increasing speeds 17 times in 17 years and doubling the capacity of its broadband network every 18-24 months. Cox has been rapidly rolling out its "Gigablast" service throughout its service area, and Charter has rolled out its "Spectrum Internet Gig" service. To power these massive broadband deployments, the cable industry has increased its investment in capital infrastructure significantly – from \$206.6 billion in 2012 to \$290 billion in 2018.

Ensuring that rural communities have access to high-quality broadband is a priority for the cable industry. For example, in 2017, NCTA member MidCo, a provider of Internet and cable service to rural communities, launched the MidCo Gig Initiative – a commitment to extend gigabit speeds – which are already available to more than 90% of its customers – to its entire, mainly rural, service area. It does so using an innovative fixed wireless approach to extend its network beyond the reach of its hardwired fiber networks. This process is one example of how cable ISPs are exploring innovative approaches to extend broadband in rural areas, powering innovations from rural telehealth to precision agriculture.

Question 2. We all can agree that for vast majority of Americans the video marketplace has changed over the past several years. What are the key drivers of this transformation? How should we think about these changes when it comes to STELA reauthorization?

Response. The transformation in the video marketplace is being driven by previously unimagined levels of competition. Today, consumers enjoy a historic level of choice in content, and more ways than ever before to watch it:

• First, today's video programming ecosystem is more diverse and higher quality than ever before. The cable industry's investment in content has been well received, with cable networks winning 65 Primetime Emmy Awards in 2018.

• Second, there are many new sources of content. Content spending by online video services is staggering and fueling their growth in popularity. Netflix spent \$12 billion on content in 2018, and analysts predict that figure will grow to \$15 billion in 2019. Even entities that were

not traditionally video content providers, such as Amazon and Twitter, are investing in video content.

• Third, how cable delivers content to subscribers is also changing. Cloud DVR, "TV Everywhere" offerings, and extensive On Demand libraries allow cable customers to view their content whenever and wherever they want.

• Finally, today's cable operators face vigorous competition from MVPDs, online video distributors like Netflix, and content providers selling directly to consumers. This competition has created a marketplace where no single type of video service is dominant. Of the top ten video subscription services, only four are cable companies. Providers like Google, Netflix, Amazon, Hulu, and Sling TV have not only emerged, but gained well over 100 million subscribers, and the number of consumers that receive their programming through virtual MVPDs and online-only subscribers has rapidly increased from 12.9 million at year-end 2015 to 20.7 million households at year-end 2018.

These changes in the video marketplace inevitably argue for legal changes that would promote fair competition by removing unduly burdensome requirements that current law imposes on cable operators and programmers, but not their competitors. Congress should keep these marketplace realities in mind when it considers STELA or any other video legislation.