

Responses to Written Questions Submitted by Chairman Roger F. Wicker to Steve Berry

Question 1. As you know, last Congress I introduced the SPECTRUM NOW Act to help relocate Federal users of spectrum that is to be made available for commercial use. Do you agree that the reforms contained in SPECTRUM NOW would help provide better support for Federal users while also making it easier to make spectrum available for 5G?

Response. Increased demands for wireless service and the launch of next generation and 5G technologies require additional spectrum for commercial use. The SPECTRUM NOW Act would provide Federal users with the research and development tools necessary to use spectrum more efficiently, upgrade technologies where appropriate, and reallocate spectrum for commercial use, benefitting Federal users and consumers alike. CCA continues to support this effort.

Question 2. Mr. Berry, 5G can help expand the use of telemedicine, precision agriculture, and other technologies that will be particularly beneficial to rural Americans. However, closing the broadband gap in rural areas with existing networks has been and continues to be a priority for this Committee.

What are the unique challenges you foresee in deploying 5G in rural areas and what can Congress and the FCC do to address those issues?

Can you describe the infrastructure that will be needed to connect thousands of small cells? And, what kind of fiber investments will be needed to deliver 5G services to less densely populated areas of the country?

Response. Modern wireless technologies are already powering revolutionary uses of telemedicine, precision agriculture, and other technologies. These services will be supercharged as 5G is deployed, while enabling technologies beyond our imaginations today. Many of these technologies will have the greatest and most immediate impact in rural areas, so it is vital that these areas are not left behind.

Practically speaking, 5G will be built upon 4G LTE technologies, and we need reliable data to understand where 4G coverage exists so policymakers can advance solutions to close the digital divide. Additionally, all carriers need access to low-, mid-, and high-band spectrum frequencies to meet demands today and deploy 5G in the years ahead. For rural areas in particular, carriers need additional access to low- and mid-band frequencies. Completing the 600 MHz repack on or ahead of schedule and advancing solutions to allocate additional mid-band spectrum for commercial wireless use, including in the C band, will help carriers serve rural America.

Carriers also must have certainty regarding infrastructure deployment policies. As noted in my testimony, 5G will rely on a “high fiber” diet, and a greater focus on fiber deployment for backhaul services, in addition to microwave and satellite, is necessary to prevent backhaul from becoming a choke point in 5G networks. This is the case for small cells and larger towers, and significant investments are necessary in both urban population centers and less dense rural areas.

Question 3. Mr. Berry, your organization filed comments with the FCC explaining how a prohibition of suppliers like Huawei could cost rural telecommunications carriers hundreds of millions of dollars and disrupt service to their customers.

Can you provide any additional information regarding what would be required to eliminate Huawei and ZTE equipment from the networks of your member companies?

CCA and its members fully support efforts to protect and harden networks from cybersecurity and other national security threats. Working collaboratively with Congress and other Federal authorities, carriers need clear information regarding what equipment and services are secure for future 5G builds, as well as clear information on potential current threats to make appropriate changes to their existing networks. Carriers must have access to equipment that is secure, particularly for carriers that lack economies of scale, and additional resources based on threat assessments to provide all Americans with wireless services they can use with confidence.

Responses to Written Questions Submitted by Honorable Jerry Moran to Steve Berry

Question 1. As you and your members are aware, the Mobility Fund Phase II auction was expected to allocate \$4.53 billion to support the deployment of 4G LTE network service over the next ten years, but it has been delayed due to questions around the quality of the data submitted in formulating the initial eligibility map. Whether it is 4G or 5G mobile service, would you agree that accurate data and maps are critical to effectively closing the Digital Divide?

Response. Reliable data is absolutely critical to effectively closing the digital divide. 5G services will be built upon 4G services, doubling down on the need for a reliable and accurate depiction of 4G coverage before disbursing \$4.53 billion over the next decade. In the wireless industry, a “generation” of services often enters its peak in its tenth year. With 5G being deployed today, if the Mobility Fund Phase II (“MF II”) is built upon unreliable data, the digital divide will be significantly increased by the conclusion of MF II, failing rural America, leaving communities behind.

Question 2. While I have supported legislation like the RAPID Act and the MOBILE NOW Act to streamline overly-cumbersome regulations, what else should Congress be doing to increase U.S. competitiveness in 5G deployment?

Response. CCA commends your leadership to increase certainty for carriers as they navigate the broadband infrastructure deployment processes and welcomes further efforts to deploy the network infrastructure that will support 5G. These services will depend on a mix of small cells and macro towers, with readily available access to fiber and other advanced backhaul technologies.

Additionally, 5G deployments are dependent on increased access to spectrum, the invisible infrastructure that powers wireless services. Carriers require a mix of low-, mid- and high-band spectrum to keep up with existing growing demands for wireless use and deploy advanced 5G services. Congress plays a key role in ensuring that these finite, taxpayer owned resources are used to benefit all Americans, and CCA supports continued work to identify spectrum bands that can be reallocated for commercial use to increase U.S. competitiveness in 5G deployment.

Responses to Written Questions Submitted by Honorable Dan Sullivan to Steve Berry

Question 1. In the race to find and repurpose spectrum for 5G, it is critically important that we also responsibly consider incumbent uses. This is especially important in Alaska, where incumbents are providing critical broadband and public safety services via C-Band spectrum. In any band transition, how can the wireless industry, working with the FCC, ensure that distance learning and telemedicine capabilities, and even FAA safety communications in Alaska will not be disrupted? In particular, permitting private parties to manage any reallocation and transition process raises red flags. If there is not traditional FCC oversight, how would we ensure that those incumbent uses would be protected and that nothing would go wrong during a privately-managed transition process?

Response. The C-Band is an important source of limited mid-band spectrum for 5G, and policymakers should focus on reallocating as much spectrum in the band as is possible to support modern wireless deployments. Fortunately, that is not mutually exclusive with protecting incumbent users, including several CCA members. CCA supports continued oversight from Congress and the FCC to ensure that this process is conducted in a way that protects existing users while serving the public demand for modern wireless services. Any reallocation of C-Band spectrum should be accomplished in a manner that promotes the public interest.

Question 2. Satellite companies have proposed a private sale of C-Band spectrum in which no money would go back to U.S. taxpayers. By contrast, FCC spectrum auctions have raised billions of dollars in the past. Do you agree that funding U.S. priorities like expanded rural broadband should come before enriching foreign satellite companies? If not, why?

Response. As FCC Chairman Pai has advocated in his Digital Empowerment Agenda and bipartisan, bicameral members of Congress have supported in legislation, any auction of spectrum should include a “rural dividend” with a portion of the funds reserved to support rural broadband deployment. Rural broadband expansion, and any other priorities as directed by Congress, should be prioritized before disbursing any compensation above transition costs to current license holders.

Responses to Written Questions Submitted by Honorable Shelley Moore Capito to Steve Berry

Question 1. In your testimonies, many of you discuss the framework for 5G. While I understand the importance of innovation and support faster speeds, I have concerns that rural locations will not be adequately addressed:

What ways exist to ensure 5G develops in combination with rural broadband connectivity?

Response. 5G services will have the greatest and most immediate impact on rural areas. That is why it is critical that rural America is not left behind as 5G networks are deployed and new services are developed. To ensure that 5G develops in rural areas alongside deployment in urban areas, the FCC should adopt policies to support rural deployment and Congress should reconfirm the mandate to ensure reasonably comparable services in urban and rural areas.

Question 2. What are some steps the FCC can make to continue to streamline the deployment of 5G while ensuring rural areas continue to receive broadband and internet support?

Response. The FCC has taken significant steps to help streamline the deployment of wireless network infrastructure. However, the job is not done. Carriers must have certainty regarding the costs and time necessary to deploy, maintain, and upgrade broadband infrastructure. Steps taken now to streamline current infrastructure deployment will ease and accelerate the deployment of 5G technologies.

The Congressional mandate for reasonably comparable services in urban and rural areas was not a snapshot in time as the Telecommunications Act of 1996 was enacted but intended to continue to support an evolving level of telecommunications and information services. In 2019, that includes the deployment of 5G, and CCA strongly supports efforts to ensure that rural areas are included in 5G deployment plans.

Question 3. How can 5G be rolled out quickly to avoid a gap where there are have and have nots?

Response. 5G services are built upon today's 4G LTE networks. Absent policies to close the digital divide today, 5G will exacerbate this problem and leave rural Americans behind in the connected future. To ensure a rapid deployment of 5G services in rural America in the future, policymakers should focus on expanding current 4G deployments, and eliminating barriers deterring investment in unserved and underserved areas.

Question 4. How does the Mobility Fund play a role in 5G deployment?

Response. If based upon reliable coverage data to determine eligible areas, the Mobility Fund holds tremendous potential to provide the business case for carriers to deploy 4G LTE services that will support future 5G deployments in rural areas.

Question 5. 5G wireless services will require the deployment of a vast network of small cells. However, these networks will also need fiber-based wireline networks for their backhaul network. Could you explain to me the importance of a fiber backhaul and the allocation of spectrum in deploying these small cells?

Response. Fiber is a critical foundation of wireless networks. Absent sufficient backhaul, including through fiber, small cells will face a choke point that slows the services available to consumers. Additionally, absent sufficient spectrum access, carriers are unable to provide the wireless capacity to meet consumer demands. For 5G services to meet their potential, carriers require both sufficient access to finite spectrum resources and readily available fiber backhaul services.

Question 6. Fortunately, every school and library in my state of West Virginia has a fiber connection, but this not the case when kids go home from school. Many of them cannot do their homework assignments. This digital divide cannot continue to be overlooked. How will 5G help our students at home? How long will it take for these students to see the benefits of 5G at their homes?

Response. Closing the digital divide will help ensure that all students have the resources they need to succeed, regardless of where they live. Connectivity is key. 5G services will provide new services from increased access to lectures and homework assignments to augmented and virtual reality demonstrations to advance studies. These services will be available to students as 5G services are deployed in their communities, underscoring the importance of rapid deployments. CCA also supports legislation to allow E-Rate funds to be used to provide WiFi on school buses, to allow drive time to be used as connected learning time.

Question 7. Despite significant investment, the vast majority of my state lacks competitive access to a fiber network. How can internet providers ensure rural internet access remains competitive as 5G gains more prevalence?

Response. Backhaul is a critical component to 5G services. Increased business opportunities unlocked through 5G deployments as well as sufficient support to deploy fiber to deliver fixed and mobile services are required to provide rural areas with reasonably comparable services as more densely populated areas.

Question 8. How can Congress ensure the regulatory conditions are in place in order to ensure states like mine can participate in the 5G economy?

Response. No state should be left behind in the 5G economy. Congress can take steps to ensure that all carriers have access to sufficient spectrum resources, certainty regarding the permitting and deployment process, and support to ensure that reasonably comparable services are deployed in urban and rural areas.

Question 9. Each member of this Committee has today or previously mentioned the importance of having accurate data and noted the flawed information that our current maps provide. Last year, I visited Flying W Plastics, a local polyethylene pipe products manufacturer in Gilmer County, West Virginia. According to a recent FCC Broadband Progress report, Gilmer County, WV is 100% served with 25 Mbps/3Mbps service. While visiting, I found this to be inaccurate. They do not have adequate broadband and unfortunately, this is not the only example like this in my state. So my question is:

When there are communities in my state who are still struggling to achieve 3 or even 4G, how do you suggest we measure the accuracy of their broadband availability?

Response. Reliable broadband coverage data is critical to adopting policies to close the digital divide. Broadband availability should be measured using standardized parameters that reflect the your constituents' experiences as they seek to connect.

Question 10. Last Congress, I introduced the Gigabit Opportunity (GO) Act and I plan to reintroduce it this Congress. This legislation would seek expedited deployment of broadband services in low-income rural and urban communities. The GO Act gives states flexibility, streamlines existing regulations, and eliminates barriers to investment so we can connect our low-income and rural communities.

How can tax proposals like the GO Act make a measurable difference in promoting rural broadband deployment? Could similar proposals help in 5G deployment?

Response. There is no single solution to connecting all Americans with advanced mobile broadband, it will require policies that embrace an all-of-the-above approach. CCA supports the GO Act as one tool available to advance broadband deployment. Tax incentives can help carriers make the business case for 5G deployments where, absent incentives, no current business case exists to provide service. Investments in broadband networks foster opportunities for economic development and job creation throughout the entire community.

Question 11. Congress has made several steps towards improving the deployment and accessibility of broadband to rural and tribal communities. For example, the AIRWAVES Act introduced by my Senate colleagues – Senator Gardner and Senator Hassan – included a “rural dividend” that would have dedicated 10 percent of any future spectrum auction funds to support the deployment of wireless infrastructure in unserved and underserved communities.

How will rural set asides like this be used differently than federal support already being distributed through programs like USF and RUS?

Response. If enacted, the rural dividend is an important tool to ensure that funding is available to support rural broadband deployments. A 2018 study assessing the economic impact of the AIRWAVES Act estimated that had the rural dividend been in place for FCC Auctions 101 and 102, as much as \$2 billion could have been generated to support rural broadband deployment.

As with today's USF and RUS programs, policymakers must remain cognizant of the potential for overbuilds or biases towards any one technology. CCA supports using proceeds from the rural dividend to specifically ensuring that funding is available to wireless deployments in rural America.