

Response to Written Questions Submitted by Hon. John Thune to Hon. Jessica Rosenworcel

*Question 1.* As part of the Spectrum Frontiers Order, the FCC made available nearly 11 GHz of spectrum, but less than 4 GHz of that will be made available on a licensed basis. And a portion of that licensed spectrum will be allocated on a shared basis.

A. I believe that there should be a balance between licensed and unlicensed spectrum. Does this Order strike the proper balance? If so, please explain why.

Answer. Yes. Unlicensed spectrum supports Wi-Fi, which has helped democratize Internet access. Unlicensed spectrum also helps wireless carriers manage their networks. To this end, more than half of all wireless data connections are offloaded at some point onto unlicensed airwaves. Moreover, unlicensed spectrum is a launching pad for wireless innovation—and a vital part of the emerging Internet of Things. Plus, unlicensed spectrum has a powerful bottom line—it contributes more than \$140 billion to our economy annually. For all of these reasons, we need spectrum policies that have a role for both licensed and unlicensed spectrum—just as you suggest.

I believe the Commission struck the right balance in its Spectrum Frontiers decision between licensed and unlicensed spectrum. In this decision, the agency adopted policies to accommodate terrestrial wireless services in the 28 GHz, 37 GHz, 39 GHz, and 64-71 GHz bands. While the 28 GHz, 37 GHz, and 39 GHz bands are designated for licensed spectrum, the 64-71 GHz band is designated for unlicensed use. This division of licensed and unlicensed spectrum makes sense because the 64-71 GHz band is adjacent to an existing swath of unlicensed spectrum. Combining them enhances spectrum efficiency by enabling the use of wider channels, which creates new possibilities for the development of Wi-Gig services.

B. Should the Commission look for more licensed spectrum as it considers additional high frequency bands in its further notice?

Answer. Yes.

*Question 2.* The Commission has proposed an exception to the local media cross-ownership ban that would allow a broadcaster to invest in a newspaper when it is “failing.” This exception for cases in which a newspaper is “failing” renders little value to a newspaper that needs investments now, well before it is “failing.” By the time a newspaper is “failing,” a local broadcaster may no longer see it as a worthwhile investment – particularly in light of the consumer trend toward digital and mobile applications for news and entertainment. Shouldn’t the Commission be seeking ways to encourage investment in newspapers *before* they get to a state of “failing,” and before such newspapers may have to make the difficult decision to cut back on local reporting resources?

Answer. After careful consideration of the record, the Commission concluded in its Quadrennial Review decision that oversight of newspaper-broadcast cross-ownership remains an important part of protecting and promoting viewpoint diversity in local markets. However, the agency also

determined that at this time an absolute ban on newspaper-broadcast cross-ownership is overly broad and restrictive.

To this end, the Commission adopted several exceptions to its newspaper-broadcast cross-ownership rule. First, as you note, the Commission excepted failed or failing newspapers and broadcast stations from the general prohibition. However, the Commission went beyond consideration of failing firms and made clear that it also will consider exceptions on a case-by-case basis where applicants can show that the proposed combination will not harm viewpoint diversity in the local market. Finally, the Commission clarified the geographic scope of the rule by updating old analog parameters to more accurately reflect the markets that newspapers and broadcasters actually serve.

Response to Written Questions Submitted by Hon. Deb Fischer to Hon. Jessica Rosenworcel

*Question 1.* Commissioner Rosenworcel, both the federal and state universal service funds are important to my constituents in Nebraska. As Chair of the Federal-State Joint Board, you are tasked with making a recommendation to the FCC on how to update and reform the collection of contributions for the Federal Universal Fund. Nebraska is currently considering proposals to reform the contributions process for the Nebraska State Universal Service Fund. Can you provide an update on a potential proposal from the FCC on contributions reform? Do you see a role for states in contributions reform, particularly if federal action is not going to take place in the near future?

Answer. Now that the DC Circuit has issued its broadband reclassification opinion in *United States Telecom Association v. FCC*, the Federal-State Joint Board on Universal Service is continuing its work with new resolve. We have established a schedule for regular staff meetings, culminating in an in-person discussion next month at the quarterly gathering of the national association of state regulatory officials. Although it is premature to say when the recommended decision will be complete, work is certainly underway.

As you note, Nebraska, like some other states, has its own universal service fund. These state funds play an important role in ensuring that modern communications services reach our most rural communities. While the work of the Federal-State Joint Board on Universal Service proceeds, states may proceed with their own reforms, provided that any changes that are made are within their jurisdictional authority.

*Question 2.* I am excited about the opportunities that 5G networks and services may bring for the U.S. and the citizens of Nebraska, and I understand that in addition to making more spectrum available, we will have to build out new wireless infrastructure to make 5G services a reality. I know that 5G networks will rely on equipment that is much smaller than traditional wireless towers, and that these small cells will need to be widely deployed. In August, the FCC's Wireless Bureau took positive steps to help streamline the deployment of small cell antenna systems. However, you have made it clear that the FCC needs to do more. What should the Commission do to address barriers to deploying small cells?

Answer. Spectrum gets all the glory. But the unsung hero of the wireless revolution is infrastructure—because no amount of spectrum will lead to better wireless service without good infrastructure on the ground. This is especially true with the next generation of wireless services—known as 5G. With 5G services incorporating greater use of high-band spectrum, small cells are going to be a big thing. Getting these facilities fully deployed will take new focus and effort. That's because our existing policies are designed for wireless towers and facilities that have a much greater footprint than small cells.

To remedy this problem, the Commission has already taken steps to update historic and environmental review practices in order to streamline them for small cell deployment.

Specifically, in August of this year, the Commission modernized what is known as the nationwide programmatic agreement pursuant to the National Historic Preservation Act. This eliminates the need for historical review of small cell deployments on non-historic buildings, as well as on historic buildings or buildings within historic areas subject to visibility limits and historic landmark designations.

Going forward, however, we will need to do more. In the near term, the Commission should survey the fees municipalities charge for siting as well as the length of their review to better understand deployment challenges. In the long term, we will need to get creative. This could include holding a smart cities contest and rewarding the communities that put this infrastructure in place in a speedy way, facilitating the development of 5G services. In addition, we could develop the broadband and wireless equivalent of LEED certification, creating a market mechanism to encourage building owners to update their facilities for digital age service. This could be based on a model put in place by former New York Mayor Michael Bloomberg, which helped identify buildings with broadband infrastructure. We could also put a new premium on deployment on federal facilities, by developing a state-by-state comprehensive list of federal structures where deployment can occur in an expedited fashion.

*Question 3.* Consumers are increasingly using their mobile devices as part of their everyday lives. And, as such, we need to work together to find ways to allow for expansion into the 5G world. As part of that effort, I commend the FCC for its work on making high-band available for 5G. But, it is my understanding that wireless networks will need to use not only high-band spectrum but also will need access to more low-bands and mid-bands. This combination of bands is critical in order for consumers to continue to enjoy a fast paced, high demand, mobile experience. Will you agree to find ways to make more mid-band and low-band available for commercial use?

Answer. Yes. We have to remember that while we explore the possibilities of millimeter wave spectrum, mid-band and low-band spectrum is still vitally important today—and in the 5G future.