Attachment—Additional Questions for the Record

Subcommittee on Communications and Technology
Hearing on
"Accountability and Oversight of the Federal Communications Commission"
May 15, 2019

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Anna G. Eshoo (D-CA)

1. **The FCC has identified combatting robocalls as a top priority. However, Americans are still getting five billion robocalls per month, and they are the top consumer complaint at the FCC. Have you considered reorganizing the FCC to prioritize this top consumer issue by creating a division focused on robocalls?**

    a. **If so, when will you take such an action?**

    b. **If not, why not?**

Response: The Commission's Enforcement Bureau already has a division focused on robocalls. It's called the Telecommunications Consumers Division, and it aggressively enforces the Telephone Consumer Protection Act and the Truth in Caller ID Act with over $200 million in fines against robocallers and Caller ID spoofers since 2017.

2. **On what date did the FCC's Enforcement Bureau begin its investigation into the sale of geolocation data by wireless carriers or related third-party companies?**

    a. **When does the FCC expect to announce decisions related to this enforcement action? Will these actions be publicly announced?**

Response: The FCC started to look into the allegations of geolocation data misuse soon after being made aware of the allegations in 2018. Our investigation is ongoing, and the Commission's policy is not to comment on ongoing investigations.

3. **Has the statute of limitation expired or will it soon expire on any investigations related to the sale of geolocation data by wireless carriers or related third-party companies?**

    a. **If so, has the FCC secured agreements allowing investigations to continue beyond any statutes of limitations?**

Response: The FCC does not comment publicly on enforcement investigations. However, the FCC's Enforcement Bureau as a general matter keeps close track of statutes of limitations and takes necessary steps to preserve its ability to take effective action if warranted by the facts.

4. **During the worst fire in California's history, Verizon throttled the data speeds of Santa Clara County firefighters, hindering their ability to communicate.**

    a. **If the 2015 *Open Internet Order* wasn't repealed, could this practice have been considered a violation of the ban on "unjust and unreasonable" business practices?**

    b. **Has the FCC taken any actions to avoid a repeat of this issue in California and other parts of the country by Verizon or other ISPs?**

Response: As Santa Clara County itself acknowledged in a court filing, Verizon's actions here did not violate the Commission's *Title II Order*. Indeed, the *Title II Order* accepted the type of data plan Santa Clara purchased from Verizon (i.e., one in which speeds are slowed after a subscriber uses a specified amount of data) as the industry norm. Notably, repealing the *Title II Order* made clear that Verizon could offer a new plan that would favor public safety customers in a declared emergency, even though this would mean treating some users differently from others.

5. **Under the 2015 *Open Internet Order,* the FCC could investigate possible violations of bright-line prohibitions of net neutrality and other "unjust and unreasonable practices."**

    a. **Since the 2017 *Restoring Internet Freedom Order,* has the FCC been investigating whether ISPs are engaging in blocking, throttling, or paid prioritization practices, both as disclosed by ISPs and undisclosed practices?**

    b. **If not, would the FCC even know if "Over the past year, the Internet has remained free and open," as Chairman Pai stated on January 2, 2019?**

Response: The Internet was free and open before the Commission adopted the *Title II Order*, and the Internet has remained free and open since its repeal. We know this because the Commission has not seen any credible evidence of harmful network management practices since the repeal. In addition, Internet speeds are up almost 40%, infrastructure investment is up year-over-year, and fiber was deployed in 2018 to more new U.S. homes than any year before—all consistent with an open Internet. I would note, finally, that the *Restoring Internet Freedom Order* returned jurisdiction to the Federal Trade Commission to oversee the practices of Internet service providers as well as other online players, and the FCC's Memorandum of Understanding with the FTC outlines the ways that the two agencies will coordinate in protecting consumers going forward.

6. **The National Verifier has launched in 16 states where it lacks access to any databases for state-administered programs, such as the Supplemental Nutrition Assistance Program and Medicaid. Should an individual be informed that the National Verifier was not able to confirm their eligibility, they could reasonably consider this a denial from Lifeline, even though they may be eligible.**

    a. **Given these issues, what specifically is the FCC or USAC doing to ensure the National Verifier connects with state databases in the states where it has launched or where it is planning to launch, and what is the timeline to do so?**

    b. **Given the above issues regarding the rollout of National Verifier, why is the FCC pushing forward to launch in more states rather than focusing on improving connections to federal and state databases in states where National Verifier is currently deployed?**

Response: The Commission and USAC have made significant progress in rolling out the National Verifier and are working diligently to meet the December 2019 deployment timeframe established by the FCC in the 2016 *Lifeline Order*. As of June 25, 38 states and territories are participating in the National Verifier—27 of these have fully launched, and 11 have soft launched. Currently, the National Verifier can automatically check applicants' eligibility either through the automated connection to the Federal Public Housing Assistance database or, if available, through an automated connection to a state eligibility database. If an applicant's eligibility cannot be confirmed through an automated connection, the applicant can still qualify for Lifeline by submitting eligibility documentation.

USAC and the FCC are working to improve the state and federal automated connections available through the National Verifier as the rollout progresses. For example, USAC and the FCC are in the process of establishing an automated connection with the Centers for Medicare and Medicaid Services. This connection would automatically verify the eligibility of Lifeline applicants who participate in Medicaid. As this connection could enable the National Verifier to automatically verify the eligibility of up to 60% of Lifeline subscribers, this will be a significant step forward. I expect this automated connection to be established later this year, and Lifeline applicants in all states and territories will be able to have their eligibility checked through this connection, regardless of whether a state automated connection has been established.

The FCC and USAC also continue to pursue additional automated connections to verify eligibility at the state level and will work with any state or territory that wants to build an automated connection with the National Verifier, including states that express interest in establishing an automated connection after the National Verifier has soft launched in that state. USAC is currently working with several states where the National Verifier has already launched to determine whether an automated connection can be established. I am confident that implementing the National Verifier nationwide will help root out waste, fraud, and abuse in the Lifeline program.

7. **As the FCC considers USTelecom's petition for forbearance from key provisions of the Telecommunications Act of 1996, what has the FCC done to consider the impact of granting this petition on (i) small and medium-sized ISPs building out the fiber**

networks needed for upgrading our country's wireless infrastructure to 5G and for closing the digital divide; and (ii) federal, state, local, and tribal government agencies, particularly those that will continue to rely on TDM-based telephone services through the continued availability of resale requirements?

Response: Staff in our Wireline Competition Bureau and Office of Economics and Analytics have been carefully reviewing the record of this proceeding over the last year, including the impact any grant of forbearance would have on small- and medium-sized Internet service providers as well as federal, state, local, and Tribal governments. Based on the record to date, I have circulated to my colleagues a carefully balanced resolution of issues with respect to the unbundling of certain middle-mile transport services. Specifically, we forbear from these requirements only where nearby competitive fiber exists. Notably, this decision should help, not hurt, those small- and medium-sized Internet service providers that are building out their own fiber transport networks. And I should note that USTelecom has withdrawn the portion of its petition that sought relief from our dark-fiber transport unbundling requirements.

8. **Should the FCC further eliminate media ownership rules as it is considering, Americans may experience a sharp reduction in the breadth and diversity of voices available in any local media market. One entity could control all broadcast TV stations, local newspapers, and radio stations. This is a direct rebuke to a fundamental value that underpins our democracy. Please share whether you are considering such outcomes and to what degree you have concerns about the consolidation of media ownership.**

    a. **Has the FCC's newly created Office of Economic Analysis provided input on the impact of eliminating media ownership rules on consumer prices in the video marketplace?**

Response: Congress requires the Commission to review its media ownership rules every four years to determine if they are "necessary in the public interest as the result of competition." The 2018 *Quadrennial Review Notice of Proposed Rulemaking* seeks comment on the current media marketplace and whether the current ownership rules should be retained, modified, or eliminated. The Commission did not adopt any tentative conclusions concerning whether the current rules should be retained, modified, or eliminated, and the record will guide the Commission on the best path forward. I expect the Office of Economics and Analytics will provide input as we move forward with this proceeding, as they do in our other proceedings. Generally speaking, I do believe it is important for the Commission's regulations in this area to reflect the marketplace that exists today, not the marketplace as it stood in 1975.

9. **The FCC is considering a proposal to alter what may be considered toward the statutory maximum of five percent franchise fees (MB Docket No. 05-311). This would negatively impact the access of communities to public, educational, and governmental (PEG) programming. As I stated in my February 22, 2019 letter to the FCC, Congress clearly intended for communities to have access to PEG. The legislative history of the 1984 Cable Act explicitly states that franchise fees are only made up of monetary payments and do not include PEG contributions (H.R. Rep. No. 98-934 (1984)). Congress made its intent on this matter explicit and clear.**

    a. **Under what statutory authority is the FCC considering this proposal which would have the effect of including PEG contributions in franchise fees?**

Response: The pending proceeding is a direct result of a 2017 remand by the U.S. Court of Appeals for the Sixth Circuit in *Montgomery County, Md., et al v. FCC.* In *Montgomery County*, the court upheld the Commission's interpretation that in-kind (i.e., non-cash) exactions are "franchise fees" subject to the statutory five percent cap on franchise fees in Section 622 of the Communications Act (47 U.S.C. § 542). The court agreed with the Commission that the terms "tax" and "assessment," which are included in the definition of franchise fee, can include nonmonetary exactions. However, the court found that the Commission's interpretation applied only to non-cable-related contributions. Therefore, the court directed the Commission to determine and explain on remand whether cable-related, in-kind contributions are "franchise fees" under Section 622. I believe that the tentative conclusion in the Further Notice of Proposed Rulemaking—specifically, that the capital costs for public, educational, and government access facilities required by the franchise are cable-related, in-kind contributions excluded from the statutory five percent franchise fee cap—is consistent with the statutory language of Section 622 and the associated legislative history.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Jerry McNerney (D-CA)

1. **When I asked you if President Trump or anyone from the White House has ever reached out to you about FCC license concerns or any other issue pending before the FCC related to an entity President Trump thinks unfairly covered him or his Administration, you said "no, not to my knowledge." Can you check with all FCC staff if President Trump or anyone from the White House has reached out to them about FCC license concerns or any other issue pending before the FCC related to a media entity President Trump has been critical of, insulted, condemned or threatened (including, but not limited to, via Twitter)?**

Response: No one on the Commission staff has notified my office that the President or anyone in the White House has contacted them directly about FCC license concerns or any other issue pending before the FCC related to a media entity.

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The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Peter Welch (D-VT)

1. **As you know, the broadcast television incentive auction and subsequent post-auction transition has been disruptive to users of wireless microphone technology such as theaters, performing arts organizations, houses of worship, and concert venues. In 2017, the Commission proposed a rule that would expand Part 74 license eligibility to persons and organizations that routinely use less than 50 microphones and demonstrate the need for professional, high-quality audio. When will the Commission give finalize this rule, which provides a critical accommodation to smaller entities that rely on wireless microphones?**

Response: We understand the importance of interference protection for entities that routinely use wireless microphones but do not meet the 50-microphone threshold for Part 74 licenses. The Commission received many comments in response to the proposals, and staff is currently analyzing the record and working on recommendations on how to proceed.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Yvette D. Clarke (D-NY)

1. **It is wonderful to see how technology has broken down barriers for people with disabilities, but I am concerned this same technology can introduce new challenges for consumers. As the FCC considers moving to fully Automated Speech Recognition or ASR, I am concerned that fully automated ASR might not work as well for certain types of accents or voices. This could become a serious problem as we move towards widespread adoption of such services. Certain consumers might be left behind.**

    a. **What has the FCC done to investigate whether fully automated ASR for IP CTS does not feature implicit or inadvertent bias?**

    b. **Will you commit to undertake such studies before certifying an ASR only provider?**

Response: I agree that IP CTS is a critical service for individuals with hearing loss. As you know, the vast majority of captioned telephone services already rely on automated speech recognition. However, those services previously have required the interposition of a communications assistant between the caller and the speech recognition software to "revoice" a caller's words. This interposition slows transcription, reduces the privacy of calls for callers, and increases the costs of IP CTS. That's why the Commission took steps to modernize IP CTS in June 2018 when we authorized the use of automated speech recognition without a communications assistant. We found that such automated speech recognition has become a viable alternative with its improvements in accuracy, speed, and privacy. Commenters in the proceeding raised similar concerns about the effectiveness of services without a human intermediary for certain types of calls, including callers with accents, but those commenters did not show the interposition of communications assistant perform better in such circumstances. And the Commission found that delay in introducing automated speech recognition was not necessary because consumers will continue to be able to select a provider based on quality of service and available methods, as automated speech recognition will not be the sole means of offering IP CTS. Additionally, I want to stress that nothing regarding our reforms allows substandard service: Providers using automated speech recognition must continue to meet the Commission's minimum Telecommunications Relay Service standards and report data to the Commission to help us determine if further measures are necessary.

2. **In considering the UST petition, does the Commission have the flexibility to take into account disparate market conditions or is it required to simply approve the petition as filed? Does the Commission have the flexibility to consider the impact of a natural disaster in a local market, such as Hurricane Maria in Puerto Rico, and how the local market conditions were and still are being impacted post-hurricane?**

Response: Section 10 of the Communications Act provides that if certain criteria are met, the Commission "shall forbear from applying any regulation or any provision of this chapter to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services, *in any or some of its or their geographic markets*" (emphasis added). Accordingly, the Commission has the flexibility to consider such factors and may grant limited relief on a geographic basis if warranted.

3. **Will the Commission take into account the special circumstances of how Hurricane Maria devasted the local telecom infrastructure, as well as the local economy, into its consideration of the UST petition and whether such deregulation should occur at this time in Puerto Rico?**

Response: Providers on both sides of the issue have raised the circumstances in Puerto Rico as an issue in the forbearance proceeding, and the Commission will be addressing those circumstances as we move forward.

4. **The Telecommunications Act of 1996 did not preempt local regulatory bodies from the Commission's evaluation of whether a market was competitive or not and thus warranted certain regulatory relief.**

    a. **Will you give deference to the input from the local jurisdictions as to whether the local market conditions warrant deregulation at this time, particularly in the case Puerto Rico where the recovery efforts are still ongoing?**

Response: The Commission will be mindful of all evidence in the record, including submissions from local regulatory bodies.

5. **The FCC is considering eliminating its local TV ownership rule. This could allow the same entity to control all ABC, NBC, FOX, and CBS programming in the same market. It would even allow that entity to control the local newspaper.**

    a. **Can you please share your thinking about such consolidation?**

    b. **Can you please describe the harms and benefits of such consolidation?**

Response: Congress requires the Commission to review its media ownership rules every four years to determine if they are "necessary in the public interest as the result of competition." The 2018 *Quadrennial Review Notice of Proposed Rulemaking* seeks comment on the current media marketplace and whether the current ownership rules should be retained, modified, or eliminated. The Commission did not adopt any tentative conclusions concerning whether the current rules should be retained, modified, or eliminated, and the record (still under review) will guide the Commission on the best path forward. Generally speaking, I believe it is important for the Commission's regulations in this area to reflect the marketplace that exists today, not the marketplace as it stood in 1975.

6. **The FCC has recently added a new office of economic analysis. Its stated purpose is to ensure that the FCC will accurately weigh costs and benefits of any rule changes.**

    a. **Has the office engaged on questions of local media ownership? If so, has it considered issues of retail price increases?**

Response: I expect the Office of Economics and Analytics will provide input as we move forward with this proceeding, as they do in our other proceedings.

7. **Often it was the companies that offered these services to gain good will from the community, and the companies received a large return for what it characterized as a de minimis cost.**

    a. **Now that the community relies on these services, how does the Commission propose to address the loss of these services to communities if it supports the cable companies' position that these former de minimis services should be charged to the community at market rate?**

Response: The pending proceeding is a direct result of a 2017 remand by the U.S. Court of Appeals for the Sixth Circuit in *Montgomery County, Md., et al v. FCC.* As a result of the remand, we are obligated to take another look at how to interpret the definition of "franchise fees" in Section 622 of the Communications Act (47 U.S.C. § 542), and specifically how "in-kind" services, such as those related to PEG channels, fit within the statutory definition. We are still evaluating the record in this proceeding. However, I believe that the tentative conclusion in the proceeding—specifically that the capital costs for PEG channels required by a franchise are cable-related, in-kind contributions that must be excluded from the statutory five percent franchise fee cap—is consistent with the statutory language of Section 622 and the associated legislative history. To the extent we ultimately find that certain PEG-related costs must be included in the franchise fee under the statute, local governments would still be able to require cable operators to fund such costs as part of the franchise, but they may have to ensure that such obligations fit within the statutory cap.

8. **Is it the Commission's position that the cost of any single strand of fiber for the provision of PEG channels and institutional services is not negligible when the cost of fiber to the companies has been decreasing while the amount of strands in a fiber pull has been increasing over the years? What concrete evidence does the commission have that there is a direct and real impact on new services and other consumer benefits offered to the consumers on [by] the cable companies? In fact, could it not be argued that there was a far greater impact years ago when the companies had fewer strands for its own use?**

Response: In the *Second Further Notice of Proposed Rulemaking*, the Commission tentatively concluded that "treating all cable-related, in-kind contributions as 'franchise fees,' unless expressly excluded by the statute, would best effectuate the statutory purpose." *Second Further*

Notice of Proposed Rulemaking, MB Docket No. 05-311, at ¶ 20. The Commission sought comment on whether PEG channel capacity and institutional network costs are expressly excluded by the statute, and on how to value those costs for purposes of calculating the franchise fee if they are not expressly excluded. We continue to evaluate the record with respect to these questions.

9. **Cable companies do not advertise PEG and I-Net as part of their services to the public, and ostensibly every provider includes it as part of their offer to an Local Franchise Authority.**

    a. **Given that this Commission has argued that increased competition between providers would be what spurs innovation, how can it then argue that benefits offered by the cable companies to communities have any effect on innovation when it is not part of any service package offered to a customer?**

    b. **Wouldn't the advertised services offered by a competitor be the impetus for a company to innovate and improve?**

Response: To the extent you are asking whether cable operators should have strong incentives to promote PEG channels, that particular issue is outside the scope of our current remand proceeding. To the extent that you are asking for the business reason cable operators offer PEG and I-Net services to LFAs, the record reflects that LFAs demand PEG and I-Net services rather than cable operators offering the services for a competitive reason.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Tony Cárdenas (D-CA)

1. **I recently wrote a letter to the FCC regarding the deployment of mid-band spectrum—specifically the C-band—for 5G services. I believe this spectrum could help accelerate the introduction of next-generation wireless services to communities across the country. Accordingly, I believe that any attempt to reallocate mid-band spectrum for 5G use should seek to maximize the amount of mid-band spectrum that is ultimately made available. I also believe that during any reallocation, the important programs that consumers in my district use for local news, weather, and entertainment should be protected. I appreciate your response to the letter and that you agree.**

   My understanding is that a public auction involving the C-band spectrum would likely result in both a fair, open, and transparent process, as well as substantially more mid-band spectrum being made available for 5G than the privately-managed spectrum sale. While the market is adept at handling certain things, the FCC's oversight of this limited resource will ensure that any reallocation happens in a way that gives access to all Americans.

   a. **Will the FCC commit to a fair, open and transparent FCC-led process—consistent with Section 309(j) of the Communications Act—for the reallocation of C-band spectrum for next-generation wireless services? I think it is very important that the FCC go through the auction process so that it can balance a thoughtful approach with expedience so that we can protect our national security and ensure the U.S. remains competitive globally.**

Response: In its 2018 Notice of Proposed Rulemaking, the Commission sought detailed comment on a variety of band-clearing proposals, in an effort to balance several policy goals, including speed to market, efficiency of spectrum use, transparency, and protecting incumbents. In any reallocation of this band—whether it be through market mechanisms or through an FCC-led approach—a fair, open, and transparent process is a top priority.

2. **Earlier this year the FCC's *Tribal Lifeline Order* was overturned by the DC Circuit. The DC Circuit said the agency had failed to justify its 2017 decision to require Lifeline providers serving Tribal lands to own their own facilities—barring Lifeline resellers from offering Lifeline on Tribal lands. The FCC currently has a proposal pending that would eliminate Lifeline resellers from the Lifeline program altogether—meaning that the providers that approximately 70% of Lifeline subscribers rely on would no longer be eligible to offer service.**

   a. **Will the FCC be moving forward with this proposal?**

b. Is there a contingency plan for what will happen to the 70% of subscribers who will lose their Lifeline provider if you eliminate resellers from the program?

c. What happens in states or locations where there are no facilities-based providers in the Lifeline program?

Response: The Lifeline program remains subject to an unacceptably high improper payments rate and wireless resellers have been the subject of the vast majority of Lifeline investigations for waste, fraud, and abuse. As such, the Commission sought comment on a variety of proposals to improve administration of this vital program. We have not reached any conclusion on how to proceed at this point.

3. In 2004, 2011, and 2016, the Third Circuit Court of Appeals instructed the Commission to perform the relevant analysis necessary to conduct a thorough and informed review of its ownership diversity policies and the impact from changes. Yet still the Commission has failed to study the impact of its rules on ownership by women and people of color, and now in the quadrennial review NPRM proposes possible further relaxation of its rules without such analysis, flagrantly disregarding the Court's explicit mandate.

a. Why has the Commission still failed to undertake the required research?

Response: The Commission properly considered the potential for changes to its structural ownership rules to impact minorities and women. As the Commission emphasized recently to the Third Circuit Court of Appeals, the Commission found in its 2017 *Order on Reconsideration* of the 2010/2014 Quadrennial Review that its elimination of the radio/television cross-ownership rule and the newspaper/broadcast cross-ownership rule, and modification of the Local Television ownership rule would not have an adverse impact on minorities or women. This conclusion was based on the extensive record developed during the proceeding, including a lack of data demonstrating such alleged harm.

In addition, the Commission addressed the diversity issues remanded from the Third Circuit in its 2016 *Second Report and Order* in the 2010/2014 Quadrennial Review. In that order, we reinstated the revenue-based eligible entity standard after careful consideration of other possible definitions. Further, in the 2017 *Order on Reconsideration* the Commission adopted an incubator program to support new and diverse ownership in the radio market and sought comment on how to implement it. I'm pleased that the Commission has since adopted implementation procedures, and the Bureau recently announced that it is accepting applications for the new incubator program. I have long believed that such a program will provide for increased ownership in the broadcasting industry by new entrants, including minorities and women. Additionally, we have other diversity proposals currently under review in the 2018 Quadrennial Review.

4. **Hundreds of electric utilities have licenses in the 6 GHz band for microwave communications. These communications are critical, particularly during emergency situations. For example, electric utilities use this band to relay information and monitor the heath and status of power lines, especially important in states like California, which has been devastated by wildfires in the last few years. I applaud the FCC for examining a more efficient use of spectrum. However, it's extremely important that these critical communications do not experience interference.**

    a. **What steps will the FCC take to balance the need to reallocate spectrum with the need to protect the crucial communications on the 6 GHz band used by electric utilities?**

Response: We share the same goals. That's why the Commission's October 2018 Notice of Proposed Rulemaking proposed to allow unlicensed use of the 6 GHz band while ensuring that the licensed services operating in the spectrum would continue to thrive.

More specifically, to minimize any potential harmful interference, we proposed rules for two types of unlicensed devices tailored to protect incumbent services that operate in distinct parts of the 6 GHz band. In the 5.925-6.425 GHz and 6.525-6.875 GHz sub-bands, unlicensed devices would only be allowed to transmit under the control of an automated frequency control system. These frequencies are heavily used by point-to-point microwave links (such as oil rigs and electric utilities) and some fixed-satellite systems. The automated frequency control system would identify frequencies on which unlicensed devices could operate without causing harmful interference to fixed point-to-point microwave receivers.

In the remainder of the 6 GHz band—that is, the 6.425-6.525 GHz and 6.875-7.125 GHz sub-bands—unlicensed devices would be restricted to indoor use and would operate at lower power, without an automated frequency control system. These frequencies are used for mobile services, such as the Broadcast Auxiliary Service and Cable Television Relay Service, as well as fixed-satellite services. Because technical aspects of these mobile services make the use of an automated frequency control system impractical, the FCC has proposed a combination of lower-power and indoor operations, which would protect licensed services operating on these frequencies from harmful interference.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Darren Soto (D-FL)

1. **Late last year, the FCC initiated a proceeding looking at how to mitigate space debris. While I think it is a positive step to consider how to address this problem, the Commission may not have the technical expertise or the resources necessary to develop or enforce the complicated regulations it is considering proposing. Further, I understand the FCC has requested a reduced budget for these activities in FY20.**

    a. **Do you agree that it is important to ensure that any orbital debris mitigation regime be straightforward and enforceable?**

    b. **Please provide me with the number of employees supporting this project in total and the number of employees on this project with undergraduate or graduate degrees in relevant technical fields, specifically: aerospace, aeronautical, and/or astronautical engineering. Given the reduced budget you are requesting for FY20, is the FCC able to hire additional technical experts with degrees in these fields?**

Response: The Commission has assessed orbital debris mitigation plans as part of its satellite authorization role for almost twenty years. And in 2004, the Commission was one of the first regulatory agencies to adopt comprehensive orbital debris mitigation regulations. Those regulations were based on the U.S. Government Orbital Debris Mitigation Guidelines developed by NASA and other U.S. government agencies, which in turn became the basis for debris mitigation guidelines adopted by the United Nations.

At the end of 2018, the Commission started a proceeding to update these regulations. Given the Commission's important role in licensing non-Federal satellite systems, we have a responsibility to review our current orbital debris mitigation rules to explore whether rule changes are needed as we enter a new era in which thousands of new satellites are deployed. We also continue to work with our federal partners to improve debris mitigation practices, including providing support to the NASA-lead effort to update U.S. Government Orbital Debris Mitigation Guidelines.

Orbital debris mitigation activities are accounted for in FCC cost accounting systems as part of licensing and other more general categories, so precise figures are not available. Senior staff estimate that not more than three FTEs are devoted to reviewing the portions of applications that discuss debris mitigation plans, and in the currently ongoing rulemaking proceeding to update debris mitigation rules. These FTEs include engineering and legal staff, with some additional economic staff FTEs (less than one) anticipated in the future. I am confident that the current professional staff working on this issue at the Commission have the necessary technical expertise to implement and enforce any rule modifications the Commission makes. Likewise, our current budget resources are adequate to address the issues raised in our proceeding.

2. **What is the FCC currently doing to ensure that minority programmers are being included by providers; especially in Metropolitan Statistical Areas (MSA) with large minority communities that are currently being underserved?**

Response: Except in limited circumstances, multichannel video programming distributors (MVPDs) generally have discretion to decide which channels to carry on their systems. However, Section 616 of the Communications Act directed the Commission to establish rules to govern the carriage agreements between MVPDs and programmers. The Commission's program carriage rules prohibit an MVPD from (i) requiring a financial interest in a program service as a condition for carriage; (ii) coercing a programmer to grant exclusive carriage rights; or (iii) discriminating against unaffiliated programmers on the basis of affiliation or non-affiliation. The rules are enforced on the basis of complaints.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Robert E. Latta (R-OH)

1. **When Congress passed the Americans with Disabilities Act in 1990, it directed the Commission to ensure that hearing and speech-impaired individuals be able to place and receive assisted telephone calls. Congress also directed that these telecommunications relay services be paid for equitably—with intrastate assessments used to fund intrastate services and interstate assessments used to fund interstate relay services.**

   The Commission chose to "temporarily" fund the entire telecommunications relay service program through only interstate (and international) assessments and then repeated that "temporary" funding approach in 2007 when internet protocol service calls (IP CTS) were added to the program.

   As I understand it, last year the Commission proposed in its Further Notice of Proposed Rulemaking (FNPRM) on IP CTS to revise the funding mechanism so that all IP CTS calls would be recovered from all providers of, intrastate, interstate and international telecommunications, interconnected VOIP and non-interconnected VOIP providers.

   Mr. Chairman, can you provide a timeline for completing the provisions of your 2018 FNPRM related to correcting the "temporary cost recovery method" and creating a permanent method in advance of the 2020-2021 TRS Fund year?

Response: The comment cycle on the FNRPM closed on October 16, 2018. Commission staff continue to review the record developed on the issues raised in the FNPRM to develop recommendations for the full Commission's consideration. I do not have a specific timeframe that I can offer at this time on the resolution of the proceeding.

2. **My concern is about how we deliver broadband to all Americans, especially unserved and underserved Rural America. One technology will not be the panacea for this challenge, but we will need a combination of solutions. Can you comment on what role you see spectrum playing in rural America and discuss if you think spectrum sharing is a feasible part of that solution?**

Response: Bridging the digital divide is the top priority for the Commission, and we are working in many ways to ensure that we meet our statutory directive to make available, so far as possible, communications services in rural America. Fixed and mobile wireless broadband will play a major role in achieving this goal. And increasing the availability of spectrum for the commercial marketplace—whether high-band spectrum (like 24 GHz), mid-band spectrum (like 3.1-3.55 GHz), or low-band spectrum (like 1.675 MHz)—requires the increased sharing of airwaves by a variety of parties.

Of note, the Commission is considering how particular spectrum bands can play a pivotal role in bridging the digital divide. For example, the Commission is currently considering updating the framework for licensing Educational Broadband Service (EBS) spectrum in the 2.5 GHz band, which constitutes the single largest band of contiguous spectrum below 3 gigahertz and is prime spectrum for next-generation mobile broadband. I have circulated a draft order to my colleagues that would give current EBS licensees and lessees more flexibility that could promote deployment, bring to market spectrum in this band that lies fallow across approximately one-half of the United States, open a priority window for Tribal Nations, and auction the remainder of white spaces to commercial operators.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Greg Walden (R-OR)

1. **On June 1, 2016, the FCC issued a public notice proposing three interdependent phases of a testing program with the United States Department of Transportation (USDOT) and the National Telecommunications and Information Administration (NTIA) to evaluate the 5.9 GHz band utilizing two sharing proposals, "detect and vacate" and "re-channelization" interference mitigation strategies.**

    a. **What is the status of this three interdependent phase test program, including timing for each of the three phases?**

    b. **Does the FCC plan to complete this three interdependent phase test program with USDOT and NTIA before the rulemaking proceeding begins that was announced at the Wi-Fi World Congress 2019? If not, please explain why not.**

    c. **Has the FCC communicated with USDOT and NTIA about any new plans regarding the 5.9 GHz rulemaking and its impact on the three interdependent phase test program?**

Response: Phase 1 of the testing is complete and the Commission has published and received comment on the test report. Phase 2, which involves basic field tests, would be conducted by the Department of Transportation in coordination with the FCC. Phase 3 too will be handled by the Department of Transportation. At this juncture, we understand the Department has not yet received devices to test from the suppliers. We are in routine contact with our federal partners concerning ongoing issues related to this matter, and we believe that a 5.9 GHz rulemaking could and should run concurrently with continued testing given the narrow scope testing proposed by the last Administration.

2. **If stakeholders seek to deploy a technology other than DSRC in the 5.9 GHz band, would that require an action by the FCC?**

Response: Yes. The Commission's current rules limit the band to DSRC. Accordingly, other automotive safety technologies, such as Cellular Vehicle-to-Everything, or C-V2X, cannot be fully developed and deployed in the United States unless and until the FCC takes action.

3. **What proportion of the 75MHz available in the 5.9 GHz band would be used directly for safety-related purposes by the DSRC technology?**

Response: Currently, the Commission's rules designate only 30 MHz of the band for safety-related purposes. The Commission has been evaluating the record in our pending proceeding

about what portion of the spectrum should be devoted to safety services. If the Commission chooses to initiate a proceeding to reexamine the use of this spectrum, I believe this issue should be explored further.

4. **This subcommittee has held numerous hearings on accelerating the deployment of fifth generation wireless and multigigabit broadband networks over the last several years. How is the U.S. effort to win this worldwide technology race taken into account as the FCC analyzes the best use of various bands in the public interest? Has the FCC analyzed the worldwide standardization in the 5.9 GHz band and market adoption trends of technologies deployed in this band internationally in order to promote American competitiveness on potentially life-saving technologies?**

Response: The Commission has continued to support a strategy of making spectrum available for 5G in low, mid and high bands. My 5G FAST plan provides a three-prong roadmap for moving ahead to ensure American competitiveness, with an emphasis on spectrum deployment. The President's April 12 announcement making it a national priority to "win[] the race to be the world's leading provider of 5G cellular communications networks" and the fact that other countries and regions similarly aim to lead in 5G both inform our efforts. They underscore the importance of other federal agencies cooperating with, rather than frustrating, the FCC's efforts to free up spectrum for the commercial marketplace (especially when the FCC's goals can be accomplished without affecting—and in some cases aiding—the operations of those agencies that rely on spectrum).

With regard to the 5.9 GHz band specifically and the recent development of Cellular Vehicle-to-Everything, or C-V2X, staff are evaluating how the U.S. stands relative to international developments in this portion of the spectrum. It is already clear that automotive safety technologies other than DSRC, such as C-V2X, cannot be fully developed and deployed in the United States unless and until the FCC takes action.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable John Shimkus (R-IL)

1. **Under the FCC's oversight, the Universal Service Administrative Company (USAC) has worked to establish a "National Verifier" system to combat fraud in the Lifeline program by ensuring all applicants are eligible for Lifeline benefits. It is my understanding USAC is actively transitioning many states from "soft-launch" status, in which participation in the National Verifier system is voluntary, to a mandatory verification system. I want to ensure that we expeditiously continue this transition to a more secure and accurate verification system. Please describe how the FCC, working with USAC, will continue the push for implementation of a robust mandatory National Verifier system.**

Response: The Commission and USAC have made significant progress in rolling out the National Verifier and are working diligently to meet the December 2019 deployment timeframe established by the FCC in the 2016 Lifeline Order. As of June 25, 2019, 38 states and territories are participating in the National Verifier—27 of these states and territories have fully launched, and 11 have soft launched. Currently, the National Verifier can automatically check applicants' eligibility either through the automated connection to the Federal Public Housing Assistance database or, if available, through an automated connection to a state eligibility database. If an applicant's eligibility cannot be confirmed through an automated connection, the applicant can still qualify for Lifeline by submitting eligibility documentation.

USAC and the FCC are working to improve the state and federal automated connections available through the National Verifier as the rollout progresses. For example, USAC and the FCC are in the process of establishing an automated connection with the Centers for Medicare and Medicaid Services. This connection would automatically verify the eligibility of Lifeline applicants who participate in Medicaid. As this connection could enable the National Verifier to automatically verify the eligibility of up to 60% of Lifeline subscribers, this will be a significant step forward. I expect this automated connection to be established later this year, and Lifeline applicants in all states and territories will be able to have their eligibility checked through this connection, regardless of whether a state automated connection has been established.

The FCC and USAC also continue to pursue additional automated connections to verify eligibility at the state level and will work with any state or territory that wants to build an automated connection with the National Verifier. USAC is currently working with several states where the National Verifier has already launched to determine whether an automated connection can be established. I am confident that implementing the National Verifier nationwide will help root out waste, fraud, and abuse in the Lifeline program.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Adam Kinzinger (R-IL)

1. **Mr. Chairman, regarding the Commission's 6 GHz proceeding, you stated in a recent letter to Senator Kennedy that the FCC believes an automated frequency control system will prevent interference to utilities and other critical infrastructure. I have been hearing concerns from energy companies in my district regarding potential interference. Please describe how the FCC would review the interference testing processes prior to, and after, implementation. Can the FCC provide assurances that harmful interference will be mitigated?**

Response: I can assure you that we will protect incumbent services against harmful interference. How precisely we will do that remains under consideration in the pending rulemaking proceeding.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Bill Johnson (R-OH)

1. **Chairman Pai: It is vital that our federal programs like those administered by the FCC and the RUS work in concert and complement each other.**

    a. **Can you explain what happens if and when these programs are not coordinated?**

    b. **Do you have suggestions as to how these agencies and Congress can do a better job of making sure these programs coordinate and do not undermine or trip over the work of each other?**

Response: I agree it is critical that federally supported broadband programs complement and coordinate with each other. The alternative to coordination is federal support for duplicative projects which disserves consumers who lack access, undermines the government's role as a fiscally responsible steward, and displaces private investment. We welcome coordination with our federal partners and private sector entities to ensure we are not duplicating efforts. In accordance with the Agricultural Improvement Act of 2018, we coordinate with our federal partners at the Department of Agriculture and have shared with them the areas that were awarded in the Connect America Fund Phase II Auction. We will continue to coordinate our efforts with our federal partners and keep the lines of communication open to ensure that federal dollars are devoted to connecting unserved areas.

2. **Chairman Pai: As for the 3.5 GHz Citizens Broadband Radio Service (CBRS) band, the FCC auction of Priority Access Licenses won't be held until next year, at the earliest. What can we do to speed up the CBRS PAL auction process to help bring this prime, mid-band 5G spectrum to market as quickly as possible?**

Response: Deployments in the 3.5 GHz band need not await an auction—the dynamic sharing environment established for this band means that commercial operators may deploy as soon as the Commission and its federal partners have authorized Spectrum Access Systems and Environmental Sensor Capabilities operators to operate. I understand from staff that we are on the verge of approving the first set of such applications and may see initial deployments later this summer.

3. **Chairman Pai, the convergence between the energy and telecommunications sectors is only growing. And, their importance to each other for recovery from natural disasters and other hazards is critical to our national security. Given the impact that the FCC's policies can have on the mission critical communications networks and infrastructure the electric sector uses for grid reliability, it could be beneficial for FERC and the FCC to convene on a regular basis to discuss policies each are considering. In fact, the FCC recently released some recommendations as they pertain to storm response and recovery efforts that encourage this interaction. Can you update me on the status of FERC-FCC interaction and comment on the benefit of commissioner-to-commissioner level discussions?**

Response: Both the FCC and FERC have made it a priority to stay in regular contact to explore and promote practices that are of mutual benefit to the reliability of our sectors. My office is leading this effort and involving the relevant FCC Bureaus and Offices. Examples of specific recent engagements include:

- FCC and FERC senior staff held a roundtable session on February 14, 2019 at FERC. This session led to a better understanding by participants of how emerging technologies will influence communications and electric sector resiliency. For example, the FCC heard that the electric utility sector plans to make wide use of the commercial 5G spectrum, now being auctioned by the FCC, to promote reliability of electric services.
- FCC and FERC senior staff met during a roundtable session on April 8, 2019 at the FCC to continue the dialog on cross sector coordination and strengthen ties to promote reliability and resiliency of our sectors.
- FCC staff will attend FERC's Reliability Technical Conference on June 27, 2019, which includes a panel entitled "Managing Changes in Communications Technologies on the New Grid."

Going forward, the FCC will continue to emphasize the importance of inter-sector coordination, bolstered by strong ties between the FCC and FERC.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Bill Flores (R-TX)

1. **Special Temporary License for Launch Spectrum: Chairman Pai, Space launches are a critical part of our economy, advancing American interests in exploration efforts, and national security. As you know, for each launch, the FCC requires applications for Special Temporary Authority to utilize government designated spectrum for communication with ground control. These processes were designed at a time when there were few commercial launches. Now that we have innovative companies conducting upwards of 20 launches per year, the process has become repetitive, and can create undue paperwork burdens and long-term scheduling difficulties. I understand the FCC had a pending rulemaking that would work to more efficiently streamline certain aspects of this process.**

    a. **Can you give any update to the status of this rulemaking?**

    b. **Are there ways that you need Congress to be more helpful in the process to more efficiently process launch spectrum licensing?**

Response: The rulemaking is still pending. I understand the importance of this issue and accordingly have asked staff to review this matter and develop a potential action plan going forward. This may include further action such as refreshing the record, in order to ensure that the evidence in the record is current and thorough.

2. **Orbital Debris Regulatory Action: Chairman Pai, a safe orbital environment is critical to the national security, economic, and scientific goals of the United States. I understand the FCC is exploring regulatory policies to mitigate orbital debris in support of this objective. It is important that the FCC employees supporting this effort have the technical background necessary to develop appropriate recommendations.**

    a. **Accordingly, will you please tell me how many FCC employees are currently working in support of this effort, and how many of them have degrees in aerospace, aeronautical, or astronautical engineering?**

Response: The Commission has assessed orbital debris mitigation plans as part of its satellite authorization role for almost twenty years. In 2004, the Commission was one of the first regulatory agencies to adopt comprehensive orbital debris mitigation regulations. Those regulations were based on the U.S. Government Orbital Debris Mitigation Guidelines developed by NASA and other U.S. government agencies, which in turn became the basis for debris mitigation guidelines adopted by the United Nations.

At the end of 2018, the Commission started a proceeding to update these regulations. Given the Commission's important role in licensing non-Federal satellite systems, we have a responsibility to review our current orbital debris mitigation rules to explore whether rule changes are needed as we enter a new era in which hundreds or thousands of new satellites are deployed. We also continue to work with our federal partners to improve debris mitigation practices, including providing support to the NASA-lead effort to update U.S. Government Orbital Debris Mitigation Guidelines.

Orbital debris mitigation activities are accounted for in FCC cost accounting systems as part of licensing and other more general categories, so precise figures are not available. Senior staff estimate that not more than three FTEs are devoted to reviewing the portions of applications that discuss debris mitigation plans, and in the currently ongoing rulemaking proceeding to update debris mitigation rules. These FTEs include engineering and legal staff, with some additional economic staff FTEs (less than one) anticipated in the future. I am confident that the current professional staff working on this issue at the Commission have the necessary technical expertise to implement and enforce any rule modifications the Commission makes.

3. **L-Band Spectrum Usage for 5G: Chairman Pai, I commend your recent efforts in advancing a proposed rulemaking regarding the L-band portion of mid-band frequencies at 1675-1680 MHz. As you know, many of us previously encouraged the Commission to consider shared commercial access to the band, which has enjoyed both bipartisan Congressional and Administration support for several years. And since mid-band spectrum is such an essential component for a full 5G buildout, we welcome your pursuit of an all-of-the-above strategy to identify and free up additional frequencies for the commercial marketplace.**

   As your colleague, Commissioner Brendan Carr, emphasized during your May meeting, if the five MHz between 1675 and 1680 is combined with adjacent and nearby channels, the Commission could ultimately free up a 40 MHz block of L-band spectrum with excellent characteristics for next-gen mobile broadband. While the NPRM on 1675-1680 MHz is a great start, can we expect to see FCC action to open up those additional L-band frequencies in the next couple of months? Does your agency have all the information it needs to make this spectrum available for 5G?

Response: Our goal is to free up more spectrum for wireless broadband while also including safeguards to ensure that any new commercial operations do not result in harmful interference to incumbent federal operators. We continue to work on assessing appropriate next steps for the additional L-Band frequencies in question.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Susan W. Brooks (R-IN)

1. **Can you elaborate on how the FCC will act on the Prague Principles and how Congress can support efforts to ensure the integrity of 5G network build out?**

Response: The FCC believes one of our top priorities must be protecting the security and integrity of the ICT supply chain. We believe national security should be a key consideration in the evaluation of all telecommunications infrastructure-related projects and service provisions, including national security review of foreign investment transactions and applications for telecommunications licenses, among others.

That's why the FCC fully supports the Prague Proposals and has already taken steps to act on them. *First*, the FCC has proposed to prohibit the use of the broadband funding we administer to purchase equipment or services from any company that poses a national security threat to the integrity of United States communications networks or the communications supply chain. *Second*, the FCC rejected China Mobile's petition to provide international telecommunications services in the United States. This decision came after a lengthy Executive Branch review of the application and consultation with the U.S. intelligence community, which concluded China Mobile posed substantial national security and law enforcement concerns that could not be adequately mitigated.

The FCC will continue to review the Prague Proposals, and identify additional steps it can take to implement them, including reviewing existing and future foreign investment and equipment in the ICT space that may pose a national security threat to 5G networks.

2. **I firmly believe that letting the private sector compete is the best way to ensure the U.S. will be the world leader in 5G technology. Can you address criticisms of that idea and the notion that the U.S. should nationalize a wholesale 5G network to somehow ensure its leadership in this space?**

Response: The FCC's facilitation of a private sector approach to 4G resulted in the U.S. becoming the global leader in 4G and reaping the economic benefits. The same approach will position the U.S. to be the global leader in 5G as well. Consistent with this, the FCC is pursuing a three-part strategy called the 5G FAST Plan—freeing up spectrum, making it easier for industry to install wireless infrastructure, and modernizing regulations to promote the wired backbone for 5G networks. And reports from earlier this year show that the plan is working, with the United States improving its position in the race to 5G. All of these gains would be put at risk should this country make the foolish gamble of a federally built, owned, and/or operated 5G network.

Attachment—Additional Questions for the Record

The Honorable Ajit Pai, Chairman, Federal Communications Commission

The Honorable Tim Walberg (R-MI)

1. **As you know, broadband mapping has been a concern among a bipartisan group of Representatives and Senators. As the Commission contemplates future reverse auction mechanisms within the USF program, it is important that the Commission not only improve its own maps but also coordinate with other Federal agencies on their mapping of broadband availability and broadband support mechanisms tied to such mapping. I appreciate your leadership in taking initiative to update the Commission's map, and I look forward to the completion of the FNPRM in WC Docket No. 11-10.**

    a. **Can you please provide a timeline on when the Commission will finish this proceeding?**

    b. **Will you commit to working with me as you continue to update your methodology before distributing any new high cost support?**

    c. **During the hearing, Commissioner O'Rielly stated that, "absent Congressional, statutory language, [other agencies] have a tendency to go their own route."**

        As Congress contemplates authorizing new or additional authority on broadband mapping and coordination:

        i. **How do we ensure that definitions of "unserved," "underserved," and "served" are appropriately tailored to prevent this duplication, while allowing agencies to continue offering broadband support that appropriately complements other agencies' efforts?**

        ii. **How do we ensure that definitions of "broadband" are tailed such that agencies cannot evade the intent of potential statutory authorities to comply with coordination?**

        iii. **How do we ensure that different types of data collected by various agencies are driven by minimally acceptable levels of granularity so that agencies can standardize data collection and reduce instances of overbuilding?**

Response: Broadband must be available to all Americans, regardless of where they live. Updated and accurate broadband data is important to accomplishing this goal. We must understand where broadband is available and where it is not to target our efforts and direct funding to those areas most in need. That is why the Commission began a top-to-bottom review

of the Form 477 process to ensure that broadband data was more accurate, granular, and ultimately useful to the Commission and the public.

After a thorough review of the record and the painstaking work of our career staff, I intend to circulate a report and order for the FCC's monthly meeting in August that would result in more granular and more accurate broadband maps. That means requiring broadband providers to report where they actually offer service below the census block level and looking to incorporate public feedback into our mapping efforts. I welcome your support for this project and look forward to continuing to work with you on our shared goal of improving the Commission's broadband coverage maps.

I also agree it is critical that federally-supported broadband programs complement and coordinate with each other. The alternative to coordination is federal support for duplicative projects, which disserves consumers who lack access, undermines the government's role as a fiscally responsible steward, and displaces private investment. We welcome coordination with our federal partners and private sector entities to ensure we are not duplicating efforts. In accordance with the Agricultural Improvement Act of 2018, we coordinate with our federal partners at the Department of Agriculture and have shared with them the areas that were awarded in the Connect America Fund Phase II Auction. We will continue to coordinate our efforts with our federal partners and keep the lines of communication open to ensure that federal dollars are devoted to connecting unserved areas.

2. **The Commission recently released its report on wireless resiliency and how best to coordinate restoration after major storms with power companies. One of the biggest takeaways from the report is the need for increased communication between power companies and communications providers—which would be helped by having a nationwide, interoperable broadband network dedicated for electric utility needs. Large electric utilities are engaged with the Department of Energy's National Renewable Energy Lab in an evaluation of how private LTE systems might help make the energy grid more efficient and resilient through the integration of broadband into the grid. But getting out of the lab and into the market requires usable spectrum. What is your best estimate for when the Commission might approve rules to support broadband deployment in the 900 MHz band?**

    a. **Could the Commission use flexibility or new tools from Congress to get this spectrum modernized for utility broadband needs in a quicker timeframe?**

    b. **Would pioneering a leasing model in this band be useful as a proof of concept to potentially modernize other bands through more innovative spectrum policy?**

Response: In March 2019, the FCC issued a Notice of Proposed Rulemaking that proposed to reconfigure the 900 MHz band to facilitate the development of broadband technologies and services, including for critical infrastructure like electric utilities. Staff are reviewing comments filed in response to the recent NPRM, and reply comments are due on July 2. At this time, I do

not believe the Commission would need additional tools from Congress to move forward with this rulemaking in a timely manner.

3. **During the hearing, I briefly asked about the need for a more robust, capable workforce for the communications industry. As you know, even with unlimited spectrum, siting reforms, or Federal dollars, none of these will get 5G, next generation fiber networks, or broadcasting infrastructure into the market without a skilled, professional workforce capable of deploying it in a timely manner.**

   How is the Commission approaching this workforce issue, and what steps can the Commission take to get all stakeholders to the table and create good, high-paying jobs that maintain technological leadership here in the United States?

   a. **Would the Commission benefit from a longer-term viewpoint and approach to this issue if it were elevated and authorized in statute to a full advisory committee as opposed to a working group under an existing advisory council?**

Response: I fully agree with you that we must have a skilled, professional workforce capable of deploying broadband other modern communications infrastructure. When I recently re-chartered the FCC's Broadband Deployment Advisory Committee (BDAC), I created a working group—the Job Skills Working Group—to develop recommendations on this exact issue. The working group has a diverse cross-membership consisting of carriers, local governments, trade associations for carriers and manufacturers, academics, tower manufacturers, a union, representatives of four-year colleges and community colleges, and educational professionals with experience in adult education and career transitions.

However, I believe that elevating the working group to a full Federal Advisory Committee is likely to slow down our efforts, rather than benefit them, thus delaying work on these important issues. First, agency staff already have solicited memberships for this working group, I have selected the members, and FCC staff have conducted the ethical vetting of members. Second, a working group is nimbler than a full Federal Advisory Committee, able to achieve at the working group level what can take a Full Advisory Committee many months longer. A working group can schedule meetings at any time and can meet as often as necessary. In contrast, Federal Advisory Committees can only meet after public notice of a full meeting has been published in the Federal Register with at least 15 days' notice before the meeting.

4. **As you know, our valuable spectrum resources have only become increasingly important as more market entrants seek access to provide new or important services. Additionally, licensed, exclusive-use incumbents have enjoyed protections from harmful interference and an expectation of renewal—and they have traditionally been made whole for any transition to comparable facilities, both spectrum or otherwise.**

Consistent with the Commission's statutory mandate to assign licenses, "if public convenience, interest, or necessity will be served thereby…",[1] it is important for the Commission to have a full, robust record in order to make such a determination. With regard to the Commission's open proceeding on the 6 GHz band, have all interested parties—including incumbents—fully participated in the Commission's process—whether through *ex parte* presentations, providing technical engineering studies to the Office of Engineering and Technology regarding the proposed Automatic Frequency Coordination mechanism, or filing in the record?

a. **If an incumbent or other applicant seeking a license fails to participate in such a process subject to the satisfaction of the Commission, will you commit to basing any Commission action on the merits filed in record?**

Response: Incumbents have been quite active in the Commission's rulemaking and numerous parties have continued to provide information through meetings with staff and *ex-parte* filings. And the Commission's decisions are always based on the record in the rulemaking proceeding.

5. **While the Commission is not and should not be the lead Federal agency responsible for the cyber security of our communications networks, the Commission can still play an important role in the integrity and security of those networks. When it comes to 5G and next generation mobile networks, one of the principal ways to achieve security is through the adoption of open-source, merit-based, voluntary industry standards—like 3GPP or IEEE.**

   However, our strategic competitors have begun to weaponize these international standards bodies to advance their security agenda, and the U.S. is at risk of failing to keep up with the scale and sophistications of contributions made by researchers and engineers from our strategic competitors. In order to maintain U.S. leadership, we must continue to send our best and brightest to these standards bodies to keep pace in leadership posts and merit-based contributions.

   To that end, what is the Commission doing to promote our U.S. industry in these conferences, and is there more the Commission could do to bolster these efforts?

   a. **Who else should be involved in these efforts?**

Response: The Commission is a member of 3GPP and has prioritized travel to 3GPP conferences and meetings in order to stay abreast of 3GPP activity and development of standards for 5G technology. 3GPP working group meetings cover much more than just security issues, and it is imperative that all of our federal partners, such as Department of Defense and Department of Homeland Security, are likewise involved in these meetings, specifically with an eye to cybersecurity and national security. To that end, the FCC has made staff available to our

[1] 47 U.S.C. 307(a)

federal partners to share information from the myriad working group and plenary meetings held worldwide within 3GPP.

6. **The Commission has been very vocal about the need for more mid-band spectrum in order to maintain U.S. leadership in 5G. While the Commission is contemplating action in the L-Band, 2.5 GHz, C-Band, and 4.9 GHz band, the CBRS Band is much further along to commercial deployment. Industry is ready to go, with several ESC systems approved and being deployed. Yet the Spectrum Access Systems are still awaiting FCC approval. What is the Commission's outlook on getting these final certifications finalized and getting the spectrum to market?**

Response: The Commission has made significant progress towards getting the 3.5 GHz Citizen's Broadband Radio Service up and running. We have been working closely with industry stakeholders and our federal partners at the National Telecommunications and Information Administration and the Department of Defense to enable new commercial operations in the 3.5 GHz band in the near future with potential commercial deployments later this summer. This process represents the successful culmination of an unprecedented collaboration between the Commission, industry, and our federal partners that will make a large swath of previously inaccessible mid-band spectrum available for innovative commercial broadband services.