

Attachment - Additional Questions for the Record

Chair Rodgers

1. On October 15, 2020, the FCC moved to a new office building.

a. On average, how many FCC staff work in person on a given day?

For the most recent month that we have statistics, June 2024, the FCC Headquarters Building averaged 270 staff members working in person per day. The agency also has a laboratory in Columbia, Maryland and staffed field offices in or around San Francisco, California; Los Angeles, California; Denver, Colorado; Miami, Florida; Atlanta, Georgia; Honolulu, Hawaii; Chicago, Illinois; New Orleans, Louisiana; Boston, Massachusetts; New York, New York; Portland, Oregon; and Dallas, Texas.

b. How many days a week are FCC staff required to work in person?

In general, under the FCC's Telework Policy, which is incorporated into the agency's binding collective bargaining agreement with NTEU, non-remote employees are generally required to report to the office at least two days per pay period on a routine and regular basis. Exceptional circumstances may warrant additional ad hoc telework in a pay period with prior supervisory approval.

c. Are there plans to change the FCC in-person staffing policy?

At this time there are no plans to change the FCC's Telework Policy, which, as noted above, is incorporated into its binding collective bargaining agreement with NTEU. However, under the policy, the FCC has the ability, for legitimate business reasons, to require employees to report to the office on additional days and to modify their telework agreements to reduce the number of routine telework days.

Subcommittee Chairman Latta

1. During the hearing, you highlighted the FCC's existing policies against exclusive deals in apartment buildings, emphasizing the importance of competition and consumer choice. You also expressed concern that bulk billing practices, where internet service costs are included in rent or fees, are being used by ISPs to circumvent these prohibitions. Specifically, you said, "what we're finding now is they're bypassing those exclusive prohibitions and just baking it into the rent or assessment fees on each apartment and unit." Bulk billing arrangements in multi-dwelling units have a long history, predating the FCC's ban on exclusive deals by about five decades.

a. What specific evidence have you gathered that indicates current bulk billing arrangements differ significantly from those that existed before the exclusive deals ban? Are there specific terms, conditions, or practices that raise concerns?

As you note, I have shared with my colleagues a draft Further Notice of Proposed Rulemaking

that would seek public comment on improving competitive broadband access in multiple tenant environments. Many consumers have complained to the FCC about “bulk billing” arrangements, requiring them to pay for a specific broadband provider or service plan in the building where they live and making it challenging to set up arrangements with any other providers. These consumers are upset they do not have the benefit of competitive choice. They are concerned these policies do not comply with our rules prohibiting exclusive service in a building. That is why I have proposed that we begin a rulemaking to simply seek comment on how consumers might opt-out of these arrangements. The last time the FCC considered this issue was in 2010, when it found that these arrangements can predominately offer benefits to consumers. I believe it is important to take that last record into account. However, a lot can change in 14 years, and as is true with many policies in the telecommunications sector, it is often in the public interest to reexamine past practices to ensure they have kept up with changes in technology and the marketplace. This is especially true when it comes to consumer protection and competition. This would allow for exactly what you suggest, the opportunity to seek public comment, evidence, and study on any specific terms, conditions, or practices with bulk billing arrangements, and the consequences of an opt-out approach, including how it might improve competitive choice for consumers and how it might impact investment.

b. Has there been any evidence of changes in how residents pay for bulk-billed services? Were these expenses not included in the rent or as fees prior to the FCC’s ban on exclusive contracts?

As noted above, the FCC has not evaluated the impact of bulk billing arrangements on consumer access to broadband in multiple tenant environments since 2010. To put this in context, in 2010 the agency considered broadband any internet service with speeds of 4 Megabits download and 1 Megabit upload. No one would call that broadband today. In the draft Further Notice of Proposed Rulemaking that I have shared with my colleagues, we would explore whether to allow customers to opt-out of these arrangements. This would allow for the opportunity to establish a record based on public input reviewing just what you suggest, whether and how the market has changed, how residents pay for bulk billed services, and how these expenses have been included in rent or as separate fees in today’s multi-tenant environments.

c. How do you plan to distinguish between ISPs continuing a longstanding practice and those intentionally using bulk billing to create de facto exclusive deals? What factors are considered in making this determination?

These are precisely the kind of issues that would benefit from public comment in response to the draft Further Notice of Proposed Rulemaking because they would form a record that would help the Commission understand the impact of changing our policies on consumers, businesses, and investment.

2. Uncertainty about future spectrum access can inhibit new technology development and can have broad downstream impacts far beyond communications networks. Please provide an update on the 5030-5091 MHz band proceeding, including the next steps for networked access to the band, and any coordination with NTIA as a result of the National Spectrum Strategy.

I have shared with my colleagues a draft Report and Order that would adopt rules for non-networked Uncrewed Aircraft System (UAS) access in the 5030-5091 MHz band. The Report and Order would establish rules that rely on dynamic frequency management systems to manage and coordinate UAS non-networked access to a portion of the spectrum to facilitate its safe and efficient

use.

When the FCC began this rulemaking proceeding, the agency also sought comment on service rules for the 5030-5091 MHz band appropriate to the provision of commercial network services supporting UAS communications. At the same time, the FCC contemplated that service rules for the 5030-5091 MHz band will likely require development in phases. Consistent with this expectation, the draft Report and Order addresses the first phase, and the issues regarding service rules for exclusive-use licenses enabling network-supported services will be addressed in the future. This future effort may build on other efforts to engage stakeholders on the potential uses of the band and consider the appropriate regulatory measures to enable such uses, including but not limited to studies directed under the National Spectrum Strategy. To this end, it is noteworthy that the National Spectrum Strategy Implementation Plan provides that an inter-agency study working group for the 5030-5091 MHz band will be formed in March 2025 to perform compatibility studies and develop recommendations to expand non-federal and federal access in the band. The FCC is coordinating closely with NTIA on National Spectrum Strategy implementation, including work related to the 5030-5091 MHz band study.

2. In the rapidly evolving landscape of consumer technology, semiconductor chips play a crucial role in powering billions of devices, from cell phones and cars to critical infrastructure systems. As chips have proliferated across the economy, with nearly all consumer products incorporating connectivity and sensors, we've begun to see a parallel proliferation of unlicensed semiconductor chips getting into the supply chains for these devices. This presents a significant challenge for government, which is also a large customer for these connected devices. The unlicensed chips, many from countries of concern, are typically the cheapest option in the marketplace and often fail to meet basic security and reliability standards. I am concerned these chips pose substantial risks to national security, privacy, and the overall integrity of our communication networks.

a. Does the FCC have an effective oversight mechanism to ensure subsidy programs do not inadvertently support the use of devices powered by unauthorized or untrusted semiconductor chips? Are there specific guardrails the FCC could implement to promote the use of secure devices under these programs?

Semiconductors play a crucial role in our economy and as a result impact our national security. I share your concern about semiconductors that may be produced by untrusted vendors and in regions that represent significant geopolitical risk. For this reason, I believe the federal government can and should assist with ensuring the security of the semiconductor supply chain.

The most important investment made in semiconductor security is the CHIPS and Science Act. This legislation represents a historic investment in the production of semiconductors in the United States. The mix of subsidies, tax credits, research, and workforce training it supports is designed to improve the resilience of our supply chain, counter Chinese semiconductor efforts, and more broadly strengthen our economic and national security at home and abroad.

The work of the FCC complements the efforts underway in response to the CHIPS and Science Act. In particular, the agency has been working to strengthen the communications supply chain and remove equipment with known security vulnerabilities. To this end, our rules prohibit use of the Universal Service Fund and other federal funds administered by the agency to purchase or

maintain equipment on what is known as the Covered List. The Covered List is a compilation of communications equipment and services that have been determined to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons that was developed pursuant to the Secure and Trusted Communications Networks Act. As a condition of receiving Universal Service Funds or funds appropriated in the Consolidated Appropriations Act of 2021 for the removal of insecure equipment from our Nation’s communications networks, the agency requires applicants do not use equipment on the Covered List and with respect to the later program, remove and replace all equipment and services identified on the Covered List. In addition, our rules prohibit any equipment that is on the Covered List from obtaining authorization for use, importation, marketing, or sale in the United States through the agency’s equipment authorization program under the Communications Act and Secure Equipment Act. These measures, taken together, protect communications networks and help ensure that subsidy program are not used to support insecure equipment.

We recognize, however, that over time more may be required to address these matters. To this end, I believe the FCC should monitor the progress of the CHIPS and Science Act and how it impacts matters under our jurisdiction. In addition, in a nod to the need for further discussion on these matters, on November 25, 2022, as part of our effort to update the FCC’s equipment authorization program under the Secure Equipment Act, we sought public comment on whether and how to prohibit the authorization of devices with component parts that may be produced by entities with equipment or services on the covered list. Because electronic components that require FCC authorization are used in a wide range of Internet of Things devices, next generation phones, and consumer equipment, we are considering how we can leverage our equipment authorization processes to ensure that untrusted components do not make it into our supply chain.

Finally, we remain in close contact with the national security agencies that are entrusted in the Secure and Trusted Communications Networks Act with the responsibility to update the Covered List. Over time this list has evolved to include software, with the addition of Kaspersky Lab equipment and services. Should it change in the future and include specific semiconductors, the FCC will incorporate this restriction in the policies described above.

The Honorable Gus Bilirakis

Once a challenge to the national broadband map is submitted, some ISPs have expressed frustration at a lack of communication regarding the outcome of the challenges. Either the results can take months to verify, or a challenge will be inexplicably denied or approved with no information as to the reasons for the decision.

1. How is the commission working to improve communication around the challenge process and the outcome of the challenge review?

Under the Broadband DATA Act, the National Broadband Map is designed to be an iterative process. As a result, it is improving all the time. The challenge process is a critical source of these improvements, and the FCC is committed to making this process work because we know it leads to better data and a more accurate map.

The FCC has produced four versions of the National Broadband Map. During that time the FCC has received over 5 million challenges to provider reported availability data, resulting in over 2.5 million changes to the availability data reflected on the National Broadband Map, and fabric challenges have resulted in over 1.7 million improvements to location data on the Fabric.

To facilitate these challenges, the FCC has conducted extensive outreach and developed a number of resources to help providers understand precisely how the challenge process works. These efforts include one-on-one meetings, webinars, tutorials, knowledge base articles, and standing up a technical assistance help desk to answer any challenge-related questions. To date, FCC staff have participated in over 200 one-on-one or small group meetings with providers to answer questions regarding the National Broadband Map, including the challenge processes.

As noted above, there are two types of challenges under the Broadband DATA Act.

Fabric challenges involve the identification of broadband serviceable locations. This is the data set that is the foundation of our mapping effort because by amassing more than 200 different forms of data, including property records, property tax records, parcel and boundary records, and satellite images, we have assembled a visual list of all serviceable locations in the country. When a provider files a Fabric challenge, our system automatically notifies them of the challenge outcome. If the provider follows up with the FCC with any concerns about their Fabric challenge results, we work closely with them and our vendor, CostQuest, to review their submissions and identify ways to improve our modeling or other elements of the Fabric creation and challenge review process. Under the Broadband DATA Act, the Fabric is updated twice a year. As a result, the final adjudication for certain types of Fabric challenges, such as requests to add or remove a location, can only take place before the release of the updated version of the Fabric. However, starting later this month, the FCC will begin to provide faster responses to challengers of certain types of Fabric challenges and earlier in the process—within weeks of the challenge being submitted. We believe providing results to challengers earlier in the process and outside of the statutory obligation to update the Fabric twice a year, will provide them with the opportunity to review their results more quickly and if necessary, resubmit a modified Fabric challenge with the FCC.

Availability challenges involve an assessment of the broadband that is actually available at a broadband serviceable location. Our process for these challenges automatically notifies providers when an availability challenge is filed by, for instance, a consumer or state or local authority. The process also automatically notifies providers of the challenge outcomes. The FCC is statutorily required to adjudicate availability challenges within 90 days of the final response offered by the provider whose service is being challenged. When the FCC adjudicates challenges regarding fixed broadband availability, we provide a statement explaining the reasoning for the result.

As noted above, this is an iterative process. We continue to refine and improve it based on stakeholder feedback and lessons learned. We encourage any provider with questions or concerns about the challenge process to contact the FCC’s Broadband Data Task Force for further discussion.

The Honorable Earl L. “Buddy” Carter

- 1. The relationship between landlords and tenants historically has been a state-law issue. It seems far removed from the FCC’s core mission. What authority does the FCC have to regulate the contractual relationship between landlords and tenant, including agreements regarding the provision of broadband services provided to their tenants as a building amenity?**

As you note, I have shared with my colleagues a draft Further Notice of Proposed Rulemaking that would seek public comment on improving competitive broadband access in multiple tenant

environments. For decades, the FCC has acted to protect consumer choice for residents in multiple tenant environments, including their ability to select an internet service provider of their choosing. Many consumers have complained to the FCC about “bulk billing” arrangements, requiring them to pay for a specific broadband provider or service plan in the building where they live and making it challenging to set up arrangements with any other providers. These consumers are upset they do not have the benefit of competitive choice. They are concerned these policies do not comply with our rules prohibiting exclusive service in a building. That is why I have proposed that we begin a rulemaking to simply seek comment on how consumers might opt-out of these arrangements. The last time the FCC considered this issue was in 2010, when it found that these arrangements can predominately offer benefits to consumers. I believe it is important to take that last record into account. However, a lot can change in 14 years, and as is true with many policies in the telecommunications sector, it is often in the public interest to reexamine past practices to ensure they have kept up with changes in technology and the marketplace. This is especially true when it comes to consumer protection and competition. The intersection of service providers, landlords, and tenants is precisely the kind of complex issue that would benefit from public comment in response to the draft Further Notice of Proposed Rulemaking because they would form a record that would help the FCC understand the impact of changing our policies on consumers, businesses, and investment.

2. The Commission previously has repeatedly reviewed broadband bulk billing arrangements and determined each time that their benefits exceed any potential downsides. Would the Commission’s decision to reverse this decision without first developing an administrative record to support the opposite conclusion open the Commission to substantial legal scrutiny as a decision that is arbitrary and capricious under the Administrative Procedure Act?

As noted above, the FCC has not evaluated the impact of bulk billing arrangements on consumer access to broadband in multiple tenant environments since 2010. To put this in context, in 2010 the agency considered broadband any internet service with speeds of 4 Megabits download and 1 Megabit upload. No one would call that broadband today. In the draft Further Notice of Proposed Rulemaking that I have shared with my colleagues, we would explore whether to allow customers to opt-out of these arrangements. This would allow for exactly what you suggest, the opportunity to seek public comment and study the consequences of such an approach, including how it might improve competitive choice for consumers and how it might impact investment.

The Honorable Neal Dunn

Chair Rosenworcel, you’ve pressed to get the FCC to more expeditiously consider space station licenses by standing up the Space Bureau & trying to bring the backlog down. Given the scale of investment in space-based systems, this is an important priority. One specific element of this sector is supplemental coverage from space. This new technology could essentially eliminate cellular dead zones, & the Commission has helpfully issued experimental authorizations to test the service, as well as undertaking a proceeding & adopting rules. Some of the operators that have applications pending before the Commission will be prepared to initiate service as soon as this fall.

1. Will the Commission ensure it processes these applications by fall so that services to Americans will not be delayed?

On March 14, 2024, the FCC adopted rules to advance the agency’s vision for a “single network future” in which satellite and terrestrial networks will work seamlessly together to provide

consumers with coverage that neither network could achieve on its own. Supplemental Coverage from Space, or SCS, is a domestic regulatory framework, which will allow collaboration between satellite operators and wireless providers to enable satellite connectivity directly to consumer handsets using spectrum previously allocated only to terrestrial wireless service. As you suggest, SCS will mean that consumers will have greater connectivity in more places, including remote, unserved, and underserved areas, as well as areas affected by disasters.

The rules we adopted are an initial step to encourage the development of SCS while minimizing the risks of harmful interference to existing terrestrial and satellite networks. The FCC intends to build on the framework in the future to enable SCS deployment in additional bands and scenarios. In the meantime, the FCC will consider waiver-based proposals that do not fit neatly within the framework, provided they are not at odds with our other rules and statutory obligations.

It is important to understand the FCC rules for SCS are the first of their kind around the world. As a result, we need to work with other federal authorities and our global partners to ensure that our international obligations are being appropriately met. In order to facilitate SCS deployment while managing this process, we have granted several experimental licenses that allow operators to test this new technology. The agency staff are also reviewing waiver-based applications that were filed prior to the adoption of our new rules that request authority to conduct commercial SCS operations. We are diligently working on these matters on all fronts because we understand the importance of this service and the opportunity to lead the world with its deployment.

2. Since you have done reorganization at the FCC, have processing timelines increased?

a. What progress has been made in speeding up the approval process timelines?

The space economy is growing and as a result the number of applications for space and earth stations before the FCC are increasing in both number and complexity. In the calendar year 2023, we processed 2,804 satellite applications, which is a record. We are already well on track to exceed that in calendar year 2024. It is important to understand that many of these applications are unlike those we have seen previously, with an increasing number involving novel space activities like lunar landers, space tugs that can deploy other satellites, and space antenna farms that can relay communications.

To address this growth, just over a year ago I launched the Space Bureau. It is designed to support United States leadership in the space economy, promote long-term technical capacity to address satellite policies, and improve our coordination with other agencies. In addition, I have increased the number of staff working on these matters to improve our capacity and assist applicants, including those with near-term launch windows, so that they get the authorizations they need.

On top of prioritizing resources to address the growing number of applications, the agency is also working to streamline the processing of commercial satellite and earth station applications. On September 21, 2023, we adopted an order eliminating old rules that no longer support the current space industry. At the same time, we established clear timeframes for placing space and earth station applications on public notice. As a result, applications for geostationary orbit satellites and earth stations are generally placed on public notice within 30 days and applications for non-geostationary orbit satellites are generally placed on public notice within 60 days. If applications are not ready to be placed on public notice due to questions, errors, or omissions, applicants are notified and staff engage with the applicants. We also eliminated outdated prohibitions that limited the number of applications non-geostationary satellite operators or applicants could have on file, which simplifies both the filing

requirements and staff review of applications. We created a new, streamlined processing framework for earth station operators to add satellite points of communication, in which certain modifications are auto-granted 35 days after being put on public notice.

The new timelines that the FCC established for the initial phase of application review aim to provide applicants with enhanced clarity as the space industry grows and evolves. During the next phase of review, after applications are placed on public notice, the agency assesses the merits regarding the application—including grappling with novel technical and safety issues, addressing concerns raised in comments, and determining whether conditions, if any, are necessary. In addition, this stage of review may require coordination outside the FCC. For example, coordination with the National Telecommunications and Information Administration may be required where spectrum is shared with federal users, like the Department of Defense. Collaboration with our counterparts in other countries may also be necessary to, among other things, coordinate operations near the border. This combination of technical issues, opposition that needs to be addressed, and coordination with national and international stakeholders is time-intensive, especially when novel approaches are at issue in any application. While in many cases this process is not naturally amenable to simple shot clocks, in others where it is—as with earth station operators adding additional points of satellite communications—we have adopted them.

In the meantime, we are continuing our streamlining efforts and working to identify other areas where we can make changes. In a rulemaking adopted on December 21, 2022, the FCC sought comment on expediting the processing of earth and space station applications and deadlines for final action on certain types of satellite or earth station applications. The comments we received on this matter, including from industry, were divided on the matter of shot clocks—whether or not they were a good idea and if they were, for what types of applications and for what length of time. That is why on September 21, 2023, we sought updated comment on this subject in order to refine our questions and identify where there may be viable new timelines for taking action on the merit of an application in an expeditious way while also ensuring that statutory requirements are fully met.

Finally, as a related matter, the Space Bureau has launched a Transparency Initiative with frequently asked questions, workshops, and more. It is aimed at providing applicants with the tools and knowledge they need to get their applications filed as quickly as possible and with the information necessary to obtain the authorizations they need. The FCC hosted its first public event—a workshop on space station licensing—on November 1, 2023. The Space Bureau will continue its efforts in this area. Transparency Initiative resources are posted on the FCC website and are designed to be readily accessible for satellite operators and start-ups alike.

Chair Rosenworcel, I saw that the FCC celebrated its 20th year of orbital debris mitigation in February, thank you for your work in this important endeavor.

3. How is the FCC coordinating with other agencies that play a role in space safety such as the Department of Commerce’s (DOC) Office of Space Commerce & NOAA, NASA & the space community broadly?

As you note, on February 29, 2024, as part of our Transparency Initiative in the Space Bureau, the FCC hosted an event on the 20-year anniversary of the FCC’s orbital debris mitigation requirements. A recording of the event can be found [online](#).

A major theme of discussion at this event was the inter-agency cooperation that underpins FCC rules in this area, which were derived from the United States Government Orbital Debris

Mitigation Standard Practices. The event included participants from NASA, the Office of Space Commerce at the Department of Commerce, and the Department of State. Over the years the FCC has coordinated with these agencies as well as the Federal Aviation Administration, the Department of Defense, and others.

These coordination activities involve a number of different work streams. For instance, the FCC participates in the payload review process for launch licensing at the Federal Aviation Administration. We also support the Department of State with respect to registration of space objects under the United Nations Outer Space Treaty. In addition, we participate in inter-agency preparation for United Nations Committee on the Peaceful Uses of Outer Space meetings, and also have participated as delegates to these meetings.

With respect to orbital debris mitigation, the FCC provided technical support for the revisions in 2019 to the United States Government Orbital Debris Mitigation Standard Practices. The FCC also participates, together with the Federal Aviation Administration and Department of Defense, as part of the NASA delegation to the Inter-Agency Space Debris Coordination Committee, an international committee of space agencies that addresses space debris research and mitigation activities. An FCC staffer recently concluded a term as chair of this committee's working group on mitigation. The FCC has also provided technical support for other inter-agency policy and planning activities, often in connection with National Space Council initiatives.

With respect to coordination with the space community more broadly, the FCC's licensing processes provide extensive opportunities for public comment. In addition, through our Transparency Initiative and outreach to stakeholders we continue to ensure the regular exchange of information with the broader space community.

The Honorable John Curtis

- 1. Recent federal broadband funding mechanisms, including Enhanced Alternative Connect America Model (E-ACAM) administered by the FCC, and the Broadband Equity Access and Deployment (BEAD) Program administered by NTIA, have included a new requirement for broadband service providers who serve, in whole or in part, tribal lands throughout the country, to receive a formal resolution of consent from applicable tribal governments. This formal consent is necessary to serve both tribal locations as well as locations that are no longer located on tribal lands but may be included in an original tribal boundary from over a century ago. Recent tribal broadband funding opportunities made available through NTIA's Tribal Broadband Connectivity Program have, in many cases, de-incentivized Tribal governments from granting these formal resolutions. How is the FCC working with the NTIA and Tribal communities to resolve issues relating to the provision of service in and around tribal lands?**

As you know, too often too many Tribal lands have long been on the wrong side of the digital divide. In light of our improved National Broadband Map and the increased broadband opportunities through the Bipartisan Infrastructure Law, we have been working with Tribes and our colleagues at NTIA to help ensure that high-speed broadband is deployed on Tribal lands.

To this end, the FCC has held regular meetings with Tribes that have questions regarding our programs and specifically how high-cost support is allocated for providers serving on Tribal lands. During these discussions, we provide information about the requirements of relevant support

programs and work to facilitate engagement between carriers serving in high-cost areas and the Tribes by encouraging carriers to contact the Tribal governments' preferred contacts for further engagement. In addition, on November 29, 2023, the Wireline Competition Bureau at the FCC released a public notice reiterating the importance of high-cost carriers' compliance with Tribal engagement requirements, encouraging high-cost carriers to engage early on with Tribal governments regarding the high-cost carrier's deployment plans, and providing further information about how high-cost carriers can obtain contact information for Tribes.

The FCC also has a Memorandum of Understanding with NTIA, the Department of Agriculture, and the Department of Treasury to ensure coordination regarding broadband funding, including the Tribal Broadband Connectivity Program awards. This coordination, along with our efforts to populate a Broadband Funding Map detailing the enforceable commitments made in major broadband programs, provides an opportunity for the FCC to identify and address any overlapping support with our high-cost program. For instance, in situations where Tribal Broadband Connectivity Program support was awarded in a high-cost carrier service area, the FCC and the NTIA have outlined a process by which we discuss with the relevant high-cost carrier whether it would like to petition for a waiver of the rules to forego its high-cost deployment obligation in the overlapping areas. If the relevant Tribal government supports such a waiver from the high-cost carrier, we determine that no consumers will be stranded without service if the high-cost carrier is relieved of its obligations, and if we otherwise find good cause to grant the petition, we will adjust the high-cost carrier's obligation and support so that the Tribe can maintain its Tribal Broadband Connectivity Program funding to serve its members and the high-cost carrier will not receive support that could result in overbuilding in the area.

- 2. The Tribal consent required in recent FCC programs, such as the Notice of Funding Opportunity (NOFO) for the E-ACAM from 2023, requires incumbent providers to seek an agreement with Tribal entities to be eligible for funding for any/all BDC locations with a "Tribal" designation. If an incumbent is unable to reach an agreement with the local sovereign Tribal entity, the incumbent providers is still obligated, by the FCC, to provide services to all locations in the certified service area. Additionally, an incumbent provider will have multiple levels of engagement and compliance with the local tribal authority including a business license, access permits, and Tribal Employment Rights Ordinance/Office (TERO) compliance. How does the FCC intend to reconcile this requirement for a new agreement with Tribal entities with the obligations that these incumbent providers already have to provide services across the affiliated certified service area?**

The FCC is committed to supporting broadband deployment on Tribal lands and recognizes the need to facilitate communications between service providers and Tribal governments to do so. To this end, the FCC requires high-cost support recipients to annually engage with the Tribes in the service areas where they receive high-cost support. In adopting Enhanced A-CAM, the FCC noted that "any carrier accepting an Enhanced A-CAM offer should be prepared to serve all locations in its study area, including those on Tribal lands." The FCC also adopted a requirement that Enhanced A-CAM carriers must initiate engagement with any relevant Tribal governments within 90 days of the Enhanced A-CAM offer.

The NTIA Broadband Equity Access and Deployment program will not recognize the acceptance of an Enhanced A-CAM offer as an enforceable commitment for the deployment of qualifying broadband "unless it includes a legally binding agreement, which includes a Tribal Government Resolution, between the Tribal Government of the Tribal Lands encompassing that

location, or its authorized agent, and a service provider offering qualifying broadband service to that location.” Given the BEAD program’s definition of an enforceable commitment, we expect that Enhanced A-CAM carriers will act in good faith to provide Tribes with an opportunity to consent to the Enhanced A-CAM carrier’s deployment in time for each state’s BEAD challenge process. If the state concludes that there is no Tribal Government Resolution or other legally binding agreement expressing consent as required by the BEAD Program, the Tribal locations authorized for Enhanced A-CAM support may become eligible for BEAD support.

If a state awards BEAD funding to another provider to serve the locations subject to an Enhanced A-CAM authorization, we will allow the Enhanced A-CAM carrier and the Tribal government to notify us that they both agree to forego the Enhanced A-CAM deployment obligation. We will then adjust the Enhanced A-CAM recipient’s support and deployment obligations.

Enhanced A-CAM carriers, being the incumbent service providers, would already have agreements or ways to access the parts of the Tribal lands needed in order to provide service. We expect the carrier and the Tribe to work together and come to an agreement or understanding as to what, if any, additional agreements are necessary for the carrier to be able to fulfill its Enhanced A-CAM broadband deployment obligations on the Tribal lands. While we are open to listening to a carrier’s and Tribe’s concerns, ultimately they are the ones who must come to an agreement as the carrier has to obtain the necessary consent, permits, and other approvals.

Finally, it is important to note that our efforts to manage these multiple programs is complex because while at the FCC we have a duty to comply with the Communications Act and the provisions that require support for the provision of service in rural, insular, and high-cost areas our counterparts at NTIA and the Department of Agriculture and the Department of the Treasury have funding programs subject to different laws and statutory responsibilities.

- 3. Recent FCC programs, such as E-ACAM, leveraged the original reservation boundary maps to determine the designation of “tribal” vs “non-tribal” for each Broadband Data Collection (BDC) broadband serviceable location. Unfortunately, this method of determining tribally designated locations leads to inaccuracies, both shrinking the tribal footprint in certain areas and inadvertently labeling non-tribal lands as such based upon outdated agreements. These issues lead to many non-tribal areas and locations being designated as tribal and thus subject to requirements for alignment and agreement with the local Native American tribes for these locations that are not under tribal jurisdiction. How does the FCC intend to reconcile the differences between original reservation boundaries and current lands with tribal jurisdiction related to designations for “tribal” vs “non-tribal” for funding programs moving forward?**

For Enhanced A-CAM, the FCC adopted the same definition of “Tribal lands” that it adopted for A-CAM II in 2018. The agency has also long used this definition in other high-cost programs and in the Lifeline program. The definition includes “any federally recognized Indian tribe’s reservation, pueblo or colony, including former reservations in Oklahoma, Alaska Native regions established pursuant to the Alaska Native Claims Settlements Act (85 Stat. 688), and Indian Allotments, as well as Hawaiian Home Lands—areas held in trust for native Hawaiians by the state of Hawaii, pursuant to the Hawaiian Homes Commission Act, 1920, Act July 9, 1921, 42 Stat. 108, et seq., as amended.” At this time, no carrier or Tribe has raised concerns about this definition with us. Nonetheless, to the extent carriers or Tribes have concerns about this definition, we would encourage them to coordinate with each other, and the carrier or Tribe may petition us to seek relief

as warranted.

The Honorable Randy Weber

1. Legislation to reauthorize programs under the National Aeronautics and Space Administration (NASA) was considered by the House Science, Space, and Technology Committee on July 10, 2024. That legislation includes authority for the NASA Administrator to “develop a robust and resilient architecture for lunar communications and navigation to support the Administration’s human and robotic lunar exploration activities.”

a. Does the FCC view itself as the proper federal agency to manage the use of spectrum beyond Earth and Low Earth Orbit?

The space economy is growing rapidly. As a result, the FCC’s long-standing spectrum management activities involving objects in space are increasing to support this expansion. Because the FCC is the only United States agency that manages and coordinates spectrum use by non-governmental entities, commercial actors seeking access to airwaves are working with the agency on efforts to provide services in deep space and on and around the moon. To this end, the FCC has already issued radiofrequency licenses for two recent commercial missions designed to place landers on the lunar surface and additional requests for licenses related to lunar missions are pending.

Of course, United States spectrum management policy recognizes the roles of multiple agencies and provides for coordination of federal and non-federal operations, with NTIA serving as the focal point for federal operations, and the FCC as the focal point for commercial (and non-federal) operations. NASA’s expertise is an important and valuable contribution to the established coordination process. In addition, United States work in international studies of lunar spectrum is supported by multiple agencies, including both NASA and the FCC.

Given the FCC’s role as the sole manager of spectrum use for commercial entities, any plan that aims to develop a robust and resilient architecture for lunar communications and navigation should take into account both short- and long-term needs, including non-governmental use of the spectrum to support increased lunar exploration and future endeavors.

b. If so, why is the FCC better equipped for that responsibility than an agency with more space-specific expertise?

As noted above, the national spectrum management system relies on multiple agencies. Each brings unique expertise to the process. The FCC is the only agency that manages and coordinates spectrum use by non-governmental entities, which has long included both terrestrial and space-based satellite systems.

In fact, it has been over six decades since the FCC assisted with the launch of Telstar 1, the first commercial satellite. In the intervening years, the agency has been involved in a range of space communications efforts involving the expanding use of frequencies in any layer of the atmosphere and beyond. In the process, we have worked with United States space authorities and internationally with authorities like the International Telecommunication Union and have become one of the global leaders in regulatory matters such as frequency allocation, orbital debris mitigation, cutting-edge communications systems involving supplemental coverage from space that can bring cellphone connectivity directly to mobile devices, as well as the communications needs of in-space servicing

and manufacturing, or ISAM technologies.

For a recent demonstration of this coordinated work, consider the license the FCC granted for lunar communications for the IM-1 spacecraft that landed on the moon on February 24, 2024. This was the first lunar lander in over 50 years and was the product of a public-private partnership between NASA and the American company Intuitive Machines, made possible through NASA's Artemis program. Our efforts to assist with the spectrum management needs for this landing and other commercial space activities are grounded in our expertise in airwaves and our established process for coordination with space authorities. For this reason, the FCC expects to continue playing a role in enabling future missions to the moon and beyond.

c. What is the FCC doing to prepare for widescale use of spectrum beyond the traditional boundaries of Earth and Low Earth Orbit?

When I announced my plan to reorganize the FCC and establish a new Space Bureau, I said it was about ensuring that our policies keep up with the incredible pace of activity in the space sector. In light of the growth in this activity, we have made an effort to identify how the FCC's existing frameworks may need to be reexamined and updated.

To this end, NASA's Artemis program provides a demonstration of the need to expand communications capabilities on and around the moon. The FCC has responded by developing a streamlined small spacecraft licensing process that is available for lunar-orbiting spacecraft and missions on the surface of the moon using communications. This was the process that was used to license recent commercial lunar missions and it relieved the applicants using an older process with more requirements that was suitable only for more conventional missions. As NASA and commercial entities continue to expand lunar activities, the communications needs for these efforts will also continue to expand. The FCC will work with its federal partners and private sector interests in lunar activities to continue to assist with management of their evolving communications needs.

The Honorable Rick Allen

Wireless networks rely on spectrum. I see a very important role for private wireless broadband systems, owned and controlled by utilities, as we consider spectrum policy, technology development, and the growing role of wireless communications in this country. While NTIA's National Spectrum Strategy and the Presidential spectrum policy memorandum fleetingly reference the importance of the communications needs of critical infrastructure, the focus appears to be on freeing up spectrum for licensed exclusive commercial use or for shared use. I see the very same emphasis at the FCC in spectrum proceedings in recent years. For example, when it issued a Public Notice earlier this year asking for comment on alternatives to auctions, the Commission was not seeking input on important policy questions around spectrum access and use - how to best balance the needs of all sectors and all industries, with an overarching view of our interest as a Nation. Instead, the Commission wanted to know how it could clean out spectrum left over here and there from various past auctions - without using auctions.

- 1. Where and how do you see the importance of wireless communications networks to critical infrastructure, especially electric utilities, fitting into this spectrum policy discussion?**
- 2. How has the Commission addressed electric utilities' need for spectrum in the past,**

and how does it intend to address that need going forward?

I understand that broadband is critical for utilities and that their services are essential for our day-to-day lives. To this end, the FCC has endeavored recently to make more spectrum available to utilities in order to help make their services better and more reliable.

For example, in 2020, the FCC adopted a new band plan for the 900 MHz band, specifically 896-901 MHz and 935-940 MHz, to allow the transition of incumbent narrowband licenses to six megahertz broadband licenses for spectrum allocations in paired three by three megahertz blocks that help support private broadband utility operations. We are also currently seeking comment on a petition filed by several utilities to consider expanding this broadband allocation to five by five megahertz blocks. In addition, utilities can access spectrum in other ways, including through the secondary market, and via an “as needed” licensing system for private land mobile radio spectrum through frequency coordinators.

The Honorable Russ Fulcher

1. I know we ran out of time in our discussion, so I wanted to give you and your team an opportunity to share your thoughts on how we can improve the process for adding entities to the FCC’s covered list?

I appreciate you following up this matter. As you know, the Secure and Trusted Communications Networks Act includes a list of the national security agencies that have the authority to add new entities to the Covered List, including the Department of Homeland Security, the Department of Defense, the Office of the Director of National Intelligence, the National Security Agency, the Federal Bureau of Investigation, and the Department of Commerce acting pursuant to Executive Order No. 13873.

Congress may also add specific entities to this list, which is a compendium of communications equipment and services that have been determined to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons.

If Congress wishes to consider changes to the law governing this process, we have ideas for discussion that are based on FCC experience managing the Covered List to date. For instance, the enumerated agencies with national security expertise and authority to make determinations under the Secure and Trusted Communications Networks Act could be required to conduct periodic reviews or reports of suspect equipment and components for the specific purpose of ensuring continued oversight of evolving risks. The Federal Acquisition Security Council also could serve as a central clearinghouse for vetting determinations on equipment, and it could provide an annual report to Congress on its activities to exercise its authorities to remove or mitigate the presence of equipment that poses a threat to national security. Finally, Congress might wish to consider amending Section 889(f)(3)(B) of the John McCain National Defense Authorization Act of 2019 to remove the modifying language—“For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes,”—preceding video surveillance and telecommunications equipment produced by Hikvision, Hytera, and Dahua. This language is challenging for the FCC to implement, creates loopholes that may allow the use and distribution of this equipment to proliferate, and is difficult to monitor from a regulatory and enforcement perspective.

The Honorable August Pfluger

The last time the FCC was before the Committee, we discussed the need for the FCC to put forth a long-term Spectrum Calendar. I also followed up in QFRs on this topic, in which you pointed to licenses in core 5G bands, 550 megahertz in the 12 GHz Band for mobile use, and bands that will be studied in the NSS. You also highlighted the need to restore the FCC’s auction authority as soon as possible “to compete in a global digital economy, counter our adversaries’ technology ambitions, and safeguard our national security,” which I completely agree with; and this Committee is actively trying to do.

1. If Congress restored Auction Authority today, how quickly would you be able to conduct an auction, and how prepared would the FCC be to do so?

As a general matter, I am concerned that the longer that the agency does not have spectrum auction authority from Congress, the longer it will take to get a full auction up and running. The skill the FCC has with respect to auction management is extraordinary, but retaining this expertise may prove difficult if this expiration continues into the future.

Nonetheless, for the time being I have ensured that the agency can promptly conduct an auction if and when Congress restores our authority to use competitive bidding to assign spectrum licenses. However, this process does require a series of steps under the law, including a rulemaking, an order, completion of the auction process, and review of license applications by winning bidders for compliance with auction rules and FCC policies after the conclusion of bidding and before those applications are processed. While the auction itself can be conducted in a matter of weeks, from start to finish this process can take as much as 12 months, though the timing can be shorter or longer depending on what spectrum is being auctioned and if there have been auctions of comparable airwaves with similar band plans and licenses in the past. In addition, delay may occur if there are petitions to deny that are filed and require resolution before the final processing of license applications can take place.

However, the ongoing lapse in general auction authority precludes a number of activities that the agency might have otherwise undertaken in preparation for an auction of licenses for particular spectrum bands. So while the FCC continues to work on activities that support the continued development of our expertise and are not precluded by the lapse in authority, including work done in connection with the Universal Service Fund and specific band authority under the Bipartisan Infrastructure Law, the agency is precluded from undertaking a range of actions that would need to take place before a general spectrum auction could begin.

Before describing these actions in greater detail, it is critical to remember that the specific design of each auction must be tailored to the characteristics of that spectrum band, including the rules that govern its use, and its potential users. In order to establish these rules and procedures, the FCC must comply with the Administrative Procedure Act and seek input from the public regarding all aspects of the auction, including license rules and auction conduct. Under Section 309(j)(3)(E)(ii) of the Communications Act, this notice and comment process must allow sufficient time for prospective bidders “to develop business plans, assess market conditions, and evaluate the availability of equipment for the relevant services.” In addition, under Section 309(j)(3)(E)(i), potential participants must also have the opportunity to assess and comment on the proposed rules applicable to the auction. On top of this, bidders need time to prepare applications and submit them to participate in the auction process, which the agency must review before bidding commences. Only once these steps are complete, the FCC can conduct the bidding itself. After bidding is complete, winning bidders are required to prepare and submit post-bidding applications for the grant

of licenses, which are carefully reviewed by the FCC. At different points in this process, adjustments may be required to agency forms, processes, and software systems that can change the time frame in which an auction is conducted.

With this information in mind, the best candidates for the quickest auctions after the restoration of the FCC's spectrum auction authority are a collection of licenses in spectrum bands that the agency previously auctioned but due to a variety of reasons, not all licenses were granted. These include, but are not limited to, licenses in the 700 MHz and AWS-3 bands. However, because some of these licenses were last offered at auction roughly a decade ago, the FCC will need to revisit and update its rules. To be clear, while auction of this inventory spectrum is possible with a brief extension of authority, a more comprehensive extension of auction authority is needed in order to truly ensure our ability to compete in a global digital economy, counter our adversaries' technology ambitions, and safeguard our national security.

What bands would the FCC consider auctioning off as soon as possible? How many megahertz of spectrum could be auctioned off between now and the end of 2024?

Given the ongoing lapse of more than a year in its general auction authority, the FCC has not been able to consider the possibility of auctioning licenses for any bands not previously subject to competitive bidding, though it continues to consider generally how available spectrum bands may be utilized to serve the public. On March 7, 2024, the agency issued a Public Notice detailing the bands from past auctions that remain in FCC inventory, including spectrum in the 600 MHz, 700 MHz, 800 MHz AWS-3, PCS, BRS, MVDDS, 220 MHz, VHF/UHF paging bands—and exploring what distribution schemes outside of auctions might legally be available to put these airwaves to use.

As noted above, much of this spectrum was at one time made available through auction. That means the process for making it available again is likely to be simpler than for airwaves that have not previously been the subject of commercial distribution in an auction. Nonetheless, the agency will have to proceed in a manner that complies with the law, which necessitates a rulemaking, an order, the processing of applications, review of compliance with auction rules and FCC policies before eventual approval of license applications after the conclusion of bidding. There may also be petitions to deny that require resolution before the final approval of licenses can take place. While a significant portion of these activities could easily take place before the end of 2024, the variables associated with some of them could lead to a longer period before licenses are approved and distributed.

You've pressed hard to get the FCC to consider space station licenses more expeditiously: standing up the Space Bureau and trying to bring the backlog down. This is not a small task given the scale of U.S. investment in space-based systems. I'd like to ask about one specific element of this sector: supplemental coverage from space. This new technology will essentially eliminate cellular dead zones, and the Commission has helpfully issued experimental authorizations to test the service, as well as undertaking a proceeding and adopting rules.

Some operators have applications pending before the Commission for over two years and will be prepared to initiate service as soon as this year.

- 2. Will the Commission ensure it processes these applications in time so that services to Americans, especially lifesaving communication services, will not be delayed and are available as soon as possible?**

On March 14, 2024, the FCC adopted rules to advance the agency’s vision for a “single network future” in which satellite and terrestrial networks will work seamlessly together to provide consumers with coverage that neither network could achieve on its own. Supplemental Coverage from Space, or SCS, is a domestic regulatory framework, which will allow collaboration between satellite operators and wireless providers to enable satellite connectivity directly to consumer handsets using spectrum previously allocated only to terrestrial wireless service. As you suggest, SCS will mean that consumers will have greater connectivity in more places, including remote, unserved, and underserved areas, as well as areas affected by disasters.

The rules we adopted are an initial step to encourage the development of SCS while minimizing the risks of harmful interference to existing terrestrial and satellite networks. The FCC intends to build on the framework in the future to enable SCS deployment in additional bands and scenarios. In the meantime, the FCC will consider waiver-based proposals that do not fit neatly within the framework, provided they are not at odds with our other rules and statutory obligations.

It is important to understand the FCC rules for SCS are the first of their kind around the world. As a result, we need to work with other federal authorities and our global partners to ensure that our international obligations are being appropriately met. In order to facilitate SCS deployment while managing this process, we have granted several experimental licenses that allow operators to test this new technology. The agency staff are also reviewing waiver-based applications that were filed prior to the adoption of our new rules that request authority to conduct commercial SCS operations. We are diligently working on these matters on all fronts because we understand the importance of this service and the opportunity to lead the world with its deployment.

In 1996, Congress directed the Federal Communications Commission (FCC) to promulgate regulations that preempted all private land use restrictions applicable to exterior communications facilities that impair the ability of citizens to receive television broadcast signals, direct broadcast satellite services, or multichannel multipoint distribution services, or to transmit and receive wireless internet services. However, even though these services use almost identical antennas as Amateur Radio, Amateur Radio has been denied the same rights and is subject to private land use restrictions that prohibit the operation of Amateur Radio and the installation of amateur station antennas. Today, there are more than 760,000 Amateur Radio Operators licensed by the Federal Communications Commission (FCC) across the United States, and for over 100 years, Amateur Radio has proven that its continued presence is instrumental to the continuity of public safety and government and developing and sustaining our nation’s wireless future.

- 3. Are you aware of the current issues facing Amateur Radio operators around the United States?**
- 4. What steps will the FCC take to ensure Amateur Radio operators have equal availability of these voluntary emergency and education services as the FCC did in 1996 for television and internet services?**

As I have said in the past, I believe amateur radio service is a valuable part of the broader communications ecosystem and that provides important public benefits, including public safety. For this reason, I have made clear that we should eliminate outdated restrictions in the amateur service, just as we have done recently by getting rid of the baud rate limitation and establishing a bandwidth limitation in the amateur radio bands below 29.7 MHz.

Moreover, in recognition of the importance of amateur service, the FCC has, dating back to 1985, preempted local zoning ordinances from precluding or significantly inhibiting effective, reliable amateur communications. This is accomplished through a policy known as PRB-1, which is detailed in 47 CFR Section 97.15(b) of our rules. At the request of the amateur radio community, the FCC at one point considered the issue of private land use restrictions but ultimately chose not to preempt them because there had not been a sufficient showing in the public record that such restrictions prevented amateur radio operators from pursuing the service.

Today, the FCC does not have any petitions pending from the amateur radio community seeking preemption of private land use restrictions. While one was filed in 2018, it has since been withdrawn.

5. This Committee has held two hearings on the video marketplace. One thing that seems clear to me is that consumer demands have changed. They want more flexibility in choosing what they watch, when they watch it, where they watch it, and what they are charged for it. What actions should Congress take to modernize our nation’s video laws to allow the marketplace to continue to evolve –especially for traditional PayTV providers who are trapped in a decades-old regime? What can the FCC do also to help foster this evolution?

I agree with you that the video marketplace has changed significantly with the introduction of streaming services. There are so many new screens and new ways to watch programming. This is exciting for viewers who can consume content from near and far at virtually anytime and anyplace. At the same time, it is important to recognize that television broadcasting, which is uniquely local, should have the opportunity to thrive in this new landscape.

The primary laws governing the distribution and carriage of broadcast television stations on Multichannel Video Programming Distributors are the Cable Communications Policy Act of 1984 and the Cable Television Consumer Protection and Competition Act of 1992. Both of these laws amend the Communications Act and form the basic legal framework under which the FCC must assess all issues associated with Multichannel Video Programming Distributors.

With the market evolving, the FCC decided to take a closer look at this framework in a rulemaking in 2014. The record filed in response suggested that the agency lacks clear authority to assert jurisdiction over new online video programming distributors other than those contemplated in existing law. In other words, the FCC lacks the ability to define Multichannel Video Programming Distributors in a way other than what the statutory framework contemplated in 1984 and 1992.

To understand why, consider that Section 602(13) of the Communications Act defines a Multichannel Video Programming Distributor as an entity that “makes available for purchase, by subscribers or customers, multiple channels of video programming.” At the same time, Section 602(4) of the Communications Act defines a channel as “a portion of the electromagnetic frequency spectrum which is used in a cable system and which is capable of delivering a television channel.” It is imperative that the FCC give these words full meaning. As reflected in the record, newer online video programming distributors do not neatly fit in these statutory definitions because they lack a physical connection to subscribers and do not use any electromagnetic frequencies when delivering programming to their viewers. As you know, the FCC lacks the power to change these unambiguous provisions on its own but can do so if Congress changes the underlying law.

In addition, the record demonstrated that even if the FCC were to proceed to apply these laws

and their associated duties for must carry and program carriage to newer online video programming distributors in an effort to equalize the playing field with traditional Multichannel Video Programming Distributors, it might require changes to underlying copyright policies which are subject to the jurisdiction of the Copyright Office. Again, this is an area that the FCC presently lacks the power to address but may be able to take action, if Congress changes the underlying law.

The Honorable Kat Cammack

As we know, utilities nationwide work tirelessly to keep the lights on and our energy grid secure. Daily, they rely on private internal communication networks supported by licensed and unlicensed spectrum and fiber optic connectivity. To meet the growing demands of the energy transition, utilities need the operational certainty provided by additional licensed spectrum, whether through federal spectrum auctions or spectrum sharing opportunities.

However, since March 2023, the Commission has lacked the ability to conduct federal spectrum auctions and grant spectrum licenses to utilities and other critical infrastructure companies. This has threatened our country's national security and has limited the Commission's ability to effectively manage spectrum access and use.

- 1. Chairwoman, in your own words, what can Congress do to provide utilities and other critical infrastructure entities with the certainty that they can access licensed spectrum to support today's operations, tomorrow's growth, and the continued protection of worker and customer safety?**

While critical infrastructure entities and utilities have had the option to participate in FCC spectrum auctions, historically they have not chosen to acquire airwaves in this manner. Instead, they have acquired airwaves through "as needed" licensing systems for private land mobile radio spectrum through frequency coordinators or have sought spectrum through the secondary market for airwaves that have previously been auctioned. In particular, the railroad industry, which has a statutory mandate to implement safety measures known as positive train control, has been able to get access to spectrum through secondary market transactions facilitated by the FCC. Because critical infrastructure entities and utilities often rely on secondary markets for access to airwaves, expanding these markets would provide meaningful assistance to their efforts. The single best way to do so would be to reinstate FCC spectrum authority because it would mean more opportunities for these entities to secure the resources they need for the critical services they provide.

- 2. Specifically, with regard to utilities' need for spectrum for operation of drones, in the FCC's 5030-5081 MHz (5 GHz) proceeding (Docket No.22-323), we understand that you have circulated to your fellow commissioners a draft order that would allow for dynamically assigned frequencies in 5 GHz for uncrewed aircraft systems (UAS), i.e., drones, on a per flight basis. Please confirm if the FCC is planning to address 5 GHz band dynamic frequency assignments for UAS flights in Docket No. 22-323.**

- a. If so, what is the planning to do, and what is the timing for FCC action in this docket?**

On April 8, 2024, I shared with my colleagues a draft Report and Order that would adopt rules allowing UAS operators to obtain dynamically assigned frequencies for UAS control communications in a portion of the 5030-5091 MHz band. The draft remains pending until my colleagues complete their review and vote.

If adopted, the Report and Order would establish rules that rely on dynamic frequency management systems to coordinate non-networked UAS access to a portion of the spectrum in the 5030-5091 MHz band to facilitate its safe and efficient use. In practice, these dynamic frequency management systems would provide requesting operators with temporary frequency assignments to support UAS control link communications with a level of reliability suitable for operations in controlled airspace and other safety-critical circumstances. In order to allow operations in the band during the interim period before dynamic frequency management systems are in operation, the rules proposed in the Report and Order would, on an interim basis, require operators seeking to transmit in the band to first submit a request to the Federal Aviation Administration for deconfliction and approval and upon authorization register with the FCC.

I applaud the FCC’s work to close the digital divide and its effort to put forth initiatives to help bring affordable and reliable broadband service to more unserved and underserved communities. As we know, an essential piece to solving this puzzle is ensuring that last-mile deployments can connect to high-capacity, resilient middle-mile infrastructure. In some states, electric utilities have increasingly built targeted middle-mile broadband infrastructure to support and lower the buildout costs of last-mile broadband technology.

3. With the Commission pursuing a strategic goal of bringing “affordable, reliable, high-speed broadband to 100 percent of the country,” how important is middle-mile infrastructure to achieving this goal? What else can we do to help close the digital divide?

I agree that high-capacity, resilient middle-mile infrastructure is essential for bringing broadband service to unserved and underserved areas. Investing in middle mile infrastructure is an underappreciated but vitally important part of ensuring the success of the historic levels of broadband deployment funding now available through the Bipartisan Infrastructure Law. It helps improve resiliency by providing network redundancy and alternative routing in disruptions and disaster. It also enhances opportunities for competition in last-mile infrastructure. In addition, middle mile services are important because they connect rural broadband networks to global internet access providers. Finally, middle mile infrastructure supports wireless deployment by providing backhaul, which is especially important for 5G wireless services in light of their higher capacities and increased antenna requirements.

Congress recognized the significance of middle mile investment when it established the \$1 billion competitive grant program for middle mile infrastructure in the Bipartisan Infrastructure Law. In addition, the \$42.5 billion Broadband Equity, Access and Deployment Program also allows states to use the support it provides to assist with the deployment of middle mile infrastructure where needed to reach unserved homes with last mile connections. The FCC has coordinated closely with NTIA on both of these programs and will monitor their progress.

While the historic levels of infrastructure investment under the Bipartisan Infrastructure Law will bring broadband to unserved and underserved areas nationwide, to truly close the digital divide it is also necessary to address affordability. Congress recognized this when it provided \$14.2 billion for the Affordable Connectivity Program, which was the largest broadband affordability program in our Nation’s history. Unfortunately, the FCC was required to terminate this program due to the lack of additional funding from Congress. At the time, more than 23 million households across rural, suburban and urban America were enrolled in the ACP. The strong demand for this program is evidence that too many households are on the wrong side of the digital divide because they struggle

to pay for consistent broadband service. Congress renewing its support for this program with additional funding would assist with efforts to close the digital divide by addressing affordability gaps. Moreover, funding this program helps ensure that the investments in deployment that are being made through the Bipartisan Infrastructure Law continue to have recurring cost support through the broadest possible community of subscribers.

In 2021, the US Court of Appeals of the DC Circuit ordered the FCC to provide a reasoned explanation for retaining its 1996 limits for human exposure to radiofrequency exposure. When does FCC expect plan to provide this explanation, and will the FCC complete a new rulemaking to update its radiofrequency guidelines for human exposure?

The FCC presently continues to evaluate the best course of action in response to the decision in *Environmental Health Trust et al v. FCC*. In the meantime, the agency continues to study and review publicly available science and collaborate with the Food and Drug Administration, other federal agencies, and the international community to ensure that its radiofrequency limits continue to reflect the latest science. It is important to note that the FCC's existing radiofrequency exposure guidelines, which the decision did not vacate or declare to be invalid, remain in effect.

The Honorable Doris Matsui

- 1. The FCC's recent draft 5G Fund Order in circulation would allocate up to \$900 million in incentives for incorporating Open RAN in 5G Fund-supported networks. Meanwhile, NTIA is making progress on the Public Wireless Supply Chain Innovation Fund to advance more open and interoperable wireless networks. After awarding more than \$140 million to support testing research and development, NTIA released a second Notice of Funding Opportunity to award up to \$420 million to build the radio equipment needed to spur Open RAN adoption.**

Chairwoman Rosenworcel, how would incorporating Open RAN technology in our networks help advance our country's national security and supply chain resiliency objectives? How would FCC efforts to promote Open RAN complement other agency efforts?

Open RAN technology modularizes the hardware and software components of the traditional radio access network to promote virtualization, which can facilitate the use of machine learning solutions to optimize network performance and lead to a broader market with greater interoperability among equipment vendors.

On March 17, 2021, the FCC adopted a Notice of Inquiry to build a record at the agency identifying what may be necessary to support the development Open RAN technology. The record revealed that with the growth of the marketplace for Open RAN, new companies are entering the equipment business and many of them are located in the United States or in countries that do not pose national security risks. Having a larger number of companies offering this kind of equipment could meaningfully improve supply chain resiliency. Moreover, this technology can help with the use of artificial intelligence to improve network efficiency. Many commenters encouraged the agency to consider ways to support the development of this technology in future rules and policies.

To this end, I have shared with my colleagues a draft proposal for the 5G Fund, which is an effort to update the universal service support system for wireless networks. This modernization will ensure that funds are deployed to the areas that our National Broadband Map indicate need them

most. It also will include a special mechanism to incentivize the use of Open RAN technologies. Wireless carriers which win support from the 5G Fund will have the opportunity to receive an additional 10 percent in funding and extended timeframes to build their networks if they deploy Open RAN technology. This voluntary incentive program will make up to \$900 million available to carriers to deploy Open RAN technologies.

- 2. Next month, the FCC plans to vote on a Notice of Proposed Rulemaking (NPRM) to protect consumers against illegal robocalls generated by artificial intelligence. This includes asking for public comment on requiring callers to disclose their use of AI-generated calls, supporting technologies that alert and protect consumers from unwanted and illegal AI robocalls, and protecting positive uses of AI to improve access for people with disabilities, I appreciate this step to increase transparency and encourage the responsible deployment of AI.**

Chairwoman Rosenworcel, can you elaborate on how the NPRM would seek to balance consumer protection and transparency alongside innovation?

Artificial intelligence technologies hold great promise but also are a source of significant risk. In particular, these technologies can be used to facilitate fraud. That is why we need to be on guard to prevent AI from turbocharging robocalls and their associated scams. We are already seeing evidence of this technology being used for these junk calls. In fact, on May 23, 2024, the FCC proposed a total of \$8 million in fines for using AI-generated voice cloning technology to send unwanted robocalls that spread election disinformation to potential voters.

On August 7, 2024, the FCC adopted a rulemaking that seeks comment on measures designed to ensure that our rules governing robocalls keep pace with fast-developing changes in the use of AI technologies. In so doing, we are seeking both to protect consumers from unwanted AI-generated calls while also ensuring that our rules do not hinder the potential benefits that AI technologies can offer, including making telecommunications more readily accessible to individuals with disabilities.

The bottom line is that consumers should be aware that they are interacting with AI. They deserve to be told when this technology is being used. They have a right to know when voices or images may have been manipulated. This is why the rulemaking we adopted proposes disclosure measures that require callers using AI for calls or texts to make clear it is being used. Specifically, callers must disclose the use of AI both when obtaining initial consent from consumers to receive calls and at the beginning of any AI-generated voice message. The proposed disclosure requirements will ensure that consumers are aware they are interacting with AI, allowing them to choose whether to continue or terminate the call.

We also seek comment on technologies that can alert consumers to AI-generated unwanted calls and texts and make clear that efforts to use this technology to assist those with disabilities are not at odds with the Telephone Consumer Protection Act. Ultimately, the goal is to strike the right balance between ensuring transparency and making sure we get the benefit of these technologies when used to improve accessibility and prevent fraud.

- 3. In past Olympic Games hosted by U.S. cities, the FCC played a pivotal role in ensuring a safe and successful Olympics. For example, the FCC designated auxiliary broadcast frequency coordinators for the 2002 Winter Olympic Games in Salt Lake City and the 1996 Summer Olympic Games in Atlanta. The FCC's actions helped protect against**

spectrum congestion and excessive interference that would result in less complete broadcast coverage. Similarly, I understand that preparing for the 2028 Summer Olympic Games in Los Angeles will require careful coordination and planning to meet the evolving technology landscape.

Chairwoman Rosenworcel, how is the FCC working with LA 28 to ensure that telecommunications infrastructure, spectrum planning, and security align with the timeline and goals of the 2028 Olympics?

The FCC is working with the Los Angeles Organizing Committee for the 2028 Olympic and Paralympic Games to support their telecommunications needs. The FCC and the Los Angeles Organizing Committee have already established a working group that is meeting regularly on preparations related to infrastructure, spectrum planning, and security planning for the events. In addition, we are participating in the Global Sports Interagency Policy Committee Olympics Taskforce to support the communications needs and goals of the games in 2028. As part of this effort, FCC staff were part of an interagency visit to the site of the Paris Olympics, to help inform our efforts to support the events in Los Angeles. I will also be meeting with Reynold Hoover, the Chief Executive Officer of the Los Angeles Organizing Committee for the 2028 Olympic and Paralympic Games during a trip this month.

The Honorable Marc Veasey

Chair Rosenworcel, you have been big supporters of the reclassification of Public Safety Telecommunicators from secretaries to protective service personnel and you understand of its national impact. With the turn of the century, call volumes have increased- now averaging 240 million 9-1-1 calls annually. Despite working with outdated technology and challenging work conditions, public safety centers continue their service to protect our communities- working holidays and weekends to provide lifesaving medical advice, offer control and command services during active shooter emergencies, and talk individuals down from suicide attempts. As you know, the Standard Occupation Classification (SOC) Committee is currently requesting comments on reclassification until August 12, 2024. The SOC is responsible for providing accurate and reliable occupational data. Many federal agencies, such as the Department of Commerce, rely on the accuracy of this statistical information. Will you weigh in with OMB on the need to reclassify public safety telecommunicators?

I have long been an advocate for reclassifying 911 telecommunicators as first responders in the federal employment classification system. In my many visits to public safety answering points across the country, I have seen individuals responsible for answering 911 calls and have watched how they calmly and authoritatively organize response to all kinds of crises. It is clear to me the tasks they perform are not administrative; they are an essential part of our public safety system.

On April 15, 2024, I sent a letter to the Director of the Office of Management and Budget, which oversees the review and updating of the job classification system, reiterating my support for reclassification of 911 telecommunicators. I made clear that the FCC would welcome the opportunity to collaborate with the Office of Management and Budget on its upcoming review of this system in order to ensure telecommunicators are classified appropriately. Now that the review process is underway, I have asked the staff of the FCC to reach out again to identify how we can collaborate on this effort.

The Honorable Debbie Dingell

- 1. In the Fall when the Commission appeared before this Committee, I asked about why broadband mapping is so important and what the federal government is doing to ensure the accuracy of these maps. I would like to follow up on this.**

Chairwoman Rosenworcel, can you update us on your coordination efforts with other federal agencies regarding broadband mapping? During your previous testimony, you mentioned having trouble with some agencies, such as Treasury and USDA. What steps can Congress take to ensure these federal agencies provide accurate data to keep these maps up to date?

As a result of the Bipartisan Infrastructure Law and other recent legislation, there are now more programs to support the deployment of broadband than ever before. This is a good thing because these efforts can help close the digital divide. But to do it effectively will require coordination between agencies like never before.

To help facilitate this coordination, the FCC has entered into a Memorandum of Understanding with the Department of Commerce, Department of Agriculture, and Department of Treasury—agencies with the largest broadband programs—to memorialize our need to work together. As part of this effort, on a monthly basis the FCC requests from these agencies, as well others with broadband funding initiatives, updates on their programs and the enforceable commitments they have made to support deployment. These updates are important, because we use them to build the Broadband Funding Map, which is an effort to identify all the places where there is broadband funding from federal programs in order to prevent duplication of resources. At present the Broadband Funding Map includes data for 12 different funding programs and more than 2,000 projects.

Since my prior testimony, the FCC has expanded its outreach to the Department of Treasury and Department of Agriculture, stressing the importance of the Broadband Funding Map and the need to provide data in a specific format in order to ensure the information on the map is useful and comprehensive. We have made progress with these agencies. In fact, it is now my understanding that the Department of Treasury is working to provide additional data based on recent program awards and is reviewing awards made prior to the launch of the Broadband Funding Map. In addition, on May 8, 2024, the FCC and NTIA partnered to host a demonstration of the Broadband Funding Map and its reporting interface for other federal agencies that may have reportable broadband programs.

We will continue to seek new data on a monthly basis from other agencies with significant broadband funding programs. Likewise, we will continue to engage in outreach to ensure the Broadband Funding Map has the information required to be a useful tool for local, state, and federal authorities. However, I would welcome Congress taking action to remind all agencies with broadband deployment initiatives that it is essential they report the commitments they make to the FCC so that we have an accurate compilation of where infrastructure is being supported and by what programs.

- 2. The National Broadband Map has come a long way in providing more detailed**

information on the availability of high-speed internet service. However, with every new iteration of the map, we continue to see reports of apparent gamesmanship, overreporting, and anomalies in provider reported availability data.

Chairwoman Rosenworcel, can you please describe how the Commission is currently or plans to crack down on overreporting to ensure the maintenance of an accurate national broadband map?

Under the Broadband DATA Act, the National Broadband Map is designed to be iterative and always improving. By producing it twice a year we can ensure the data we have grows more precise and more accurate. An important part of this effort is making sure that the information reported to the agency about service availability is correct, without overreporting or gamesmanship.

The FCC has set up its broadband data collection system to avoid these problems with a mix of automatic verifications, agency-initiated audits, and continued engagement with filers. In addition, agency staff review and respond to external referrals about potential data issues or anomalies. As a result, to date we have initiated over 1,000 verification inquiries, leading to significant updates to submissions from providers and a clearer picture of broadband availability in every state and territory.

When we find problems, we refer matters for investigation and enforcement. To this end, on March 15, 2024, the FCC entered into a consent decree with Jefferson County Cable TV in which the provider agreed to pay a penalty for filing inaccurate information about service locations in our broadband data collection system. Additional enforcement investigations, based on referrals, are underway right now.

The FCC is also taking steps to evaluate and improve its audit and validation processes. On July 3, 2024, the FCC adopted an order that strengthens our audit procedures to ensure that the agency can better validate service provider availability data. At the same time, we adopted a rulemaking to seek comment on how the agency can ensure it is collecting the data necessary to validate, verify, and audit availability data from fixed wireless providers and satellite providers.

In addition to these measures, the challenge process plays a critical role in improving the accuracy of the data reported on the National Broadband Map. To promote participation in the challenge process, which allows consumers and other stakeholders to dispute the accuracy of availability information on the map with their own data, the FCC has produced educational materials explaining the process and conducted outreach to state, local, and Tribal governments interested in filing challenges. As a result, to date the FCC has received over 5 million challenges to provider reported availability data, resulting in over 2.5 million changes to the availability data reflected on the National Broadband Map.

3. The Broadband Equity, Access, and Deployment (BEAD) Program administered by NTIA is getting a lot of attention for the historic investment that's about to be made in new broadband deployments. However, with all that attention, it's easy to overlook the fact that the FCC is simultaneously administering billions of dollars in funding to expand internet service. In Michigan, nearly 275,000 locations are obligated to be connected under the RDOF and Enhanced A-CAM programs combined. The BEAD is tasked with building infrastructure to unserved locations that are not already funded by another program. This means that deployment obligations made by participants in the

FCC's RDOF and Enhanced A-CAM Programs, among others, need to be fulfilled so that our nation's collective goal of 100% universal high-speed internet availability can be realized.

Chairwoman Rosenworcel, please describe the measures by which the Commission will ensure that build out obligations are met, and BEAD can focus on deploying to everywhere else.

The FCC has a duty under the Communications Act to develop and evolve its universal service programs to support communications in rural, insular, and high-cost locations across the country. To this end, the FCC's high-cost programs have played an important role in deploying broadband to many remote communities that would not be able to sustain service without support.

The process at the FCC is designed ensure that high-cost funding is only authorized for providers that demonstrate they are legally and financially capable of meeting the deployment obligations associated with the funding. As one example, for the Rural Digital Opportunity Fund, which is one of the more recent FCC universal service programs supporting broadband infrastructure in rural areas under the Communications Act, the agency used a two-step application process. The first phase was used to determine which providers were qualified to bid, and the second was used to determine which providers would be authorized to receive funding. In addition, the second phase required winning bidders to provide detailed technical and financial information so the FCC could assess the viability of the applicant's bid and determine whether the applicant satisfied the requirements for authorization. As another example, for Enhanced A-CAM, another universal service program supporting broadband infrastructure in rural areas under the Communications Act, only existing eligible telecommunications carriers were qualified for the offer of Enhanced A-CAM support.

After authorizing support for a provider, the FCC uses reporting requirements, compliance reviews, and withholding as needed, to ensure that support recipients meet their deployment obligations. In 2022, to add to these measures and further improve accountability, the agency established the Rural Broadband Accountability Plan to monitor and ensure compliance for the FCC's universal service high-cost programs, including the Rural Digital Opportunity Fund and Enhanced-ACAM program. The Rural Broadband Accountability Plan made a number of changes to our procedures, including doubling the number of audits and verifications, conducting the first on-site audits for the programs, and focusing audits and verifications on the largest winning bidders.

In addition, our high-cost universal service programs use milestones and network testing to assist us in determining whether support recipients are meeting their broadband deployment obligations. Carriers receiving assistance are required to file data on their progress annually and those falling short are subject to withholding, additional reporting, and enforcement action if necessary. On top of this, the Universal Service Administrative Company conducts compliance reviews of universal service fund recipients. These reviews can also result in withholding and additional reporting and as needed, recovery and sanctions.

The FCC is also making efforts to ensure its universal service programs work with newer programs authorized by the Bipartisan Infrastructure Law, including the BEAD program. The FCC has signed a Memorandum of Understanding with the Department of Commerce, Department of Agriculture, and Department of Treasury to memorialize our need to coordinate to ensure that our programs to support broadband are complementary. These agencies work with

the FCC to report the enforceable commitments they have made for broadband funding on the Broadband Funding Map, which is a compilation of all broadband deployment initiatives at the federal level. This map is an essential tool for avoiding unnecessary duplication and helping ensure that we can reach everyone, everywhere in this country with high-speed service.

- 4. As you know, I am a strong proponent of local news and, in Detroit, we have some of the best examples of local journalism. I commend you on your recent proposal to prioritize broadcast license application reviews for stations that provide local programming. And I salute the Commission's longstanding commitment to expediting license renewals for stations that have a commitment to the communities they serve.**

Chairwoman Rosenworcel, can you update the Committee as to the latest on your 'supporting local journalism' rulemaking?

Local journalism is essential for us to make informed decisions about our lives, our communities, and our country. Last year I shared with my colleagues a rulemaking designed to advance the FCC's longstanding policy of supporting local journalism and honor the commitment made by broadcasters to meet the needs and interests of their local communities. As you suggest, it proposed that the agency prioritize the broadcast license application renewals for stations with capacity for local programming origination. On January 10, 2024, the rulemaking was adopted. Comments were due on March 11, 2024 and reply comments were due on April 8, 2024. We have a record with many suggestions from many different kinds of stakeholders. We are reviewing it now and evaluating the next steps we can take that will best support the continued production of local journalism.

The Honorable Ann Kuster

- 1. Chairwoman Rosenworcel, I believe all Americans should be able to get online. Because broadband is an essential service, I'm proud the FCC has restored net neutrality to ensure open internet access. But recognizing that approximately 4.2 million Americans don't have internet access, would the FCC exempting broadband providers with fewer than 250,000 subscribers from these rules help close the connectivity gap and improve internet access?**

I agree with you that all people in this country should have the ability to get online. I also believe that for everyone, everywhere to enjoy the full benefits of the internet age, internet access needs to be fast, open, and fair. That is why earlier this year the FCC restored federal oversight over broadband and adopted net neutrality policies to ensure we can all go where we want and do what we want online without our broadband providers making choices for us.

As was done in the past by the FCC, the rules adopted this year considered the need for tailored relief for smaller providers. The order we adopted included a temporary exemption for broadband providers with 100,000 or fewer subscribers from the FCC's enhanced performance characteristics transparency requirements. This exemption was designed to be in effect for at least 18 months, with the potential to become permanent thereafter. However, it is important to acknowledge that the net neutrality rules the agency adopted are now the subject of litigation in the Sixth Circuit Court of Appeals and the rules themselves were stayed in a decision on August 1, 2024.

The Honorable Robin Kelly

Thank you for taking the time to testify at the U.S. House of Representatives Committee on Energy & Commerce Subcommittee on Communications & Technology hearing entitled, “The Fiscal Year 2025 Federal Communications Commission Agency Budget”. Please accept these questions for the record.

- 1. There has been quite a lot of discussion recently about the FCC starting a proceeding to consider banning or otherwise limiting bulk billing arrangements in multi-premises environments. From the comments I’ve received from my district, such an effort could raise concerns. They tell me bulk deals help keep prices low and give them higher performance broadband and ending these deals could eliminate these benefits. But I also understand that there are many variations of what these arrangements look like, and in some cases, they may be driving consumer frustration.**

Although I recognize the FCC has yet to adopt the proposal and seek comment on it, may you commit to taking these concerns into consideration when determining whether to proceed?

As you note, I have shared with my colleagues a draft Further Notice of Proposed Rulemaking that would seek public comment on improving competitive broadband access in multiple tenant environments. Many consumers have complained to the Commission about “bulk billing” arrangements, requiring them to pay for a specific broadband provider or service plan in the building where they live and making it challenging to set up arrangements with any other providers. These consumers are upset they do not have the benefit of competitive choice. They are concerned these policies do not comply with our rules prohibiting exclusive service in a building. That is why I have proposed that we begin a rulemaking to simply seek comment on how consumers might opt-out of these arrangements. The last time the Commission considered this issue was in 2010, when it found that these arrangements can predominately offer benefits to consumers. I believe it is important to take that last record into account. However, a lot can change in 14 years, and as is true with many policies in the telecommunications sector, it is often in the public interest to reexamine past practices to ensure they have kept up with changes in technology and the marketplace. This is especially true when it comes to consumer protection and competition. This rulemaking would ask for input on these issues and collect comment from a wide range of stakeholders, including those in student, low-income, and senior housing.

- 2. I appreciate you forbearing from taxing broadband to pay for Universal Service in a recent proceeding. I view your decision as important to ensuring the government is not adding to the cost of broadband for consumers, especially as we are engaged in a monumental effort to wire every American household, including rural America, with broadband. As you know, there is a bipartisan, bicameral working group discussing legislative reforms to the Universal Service programs. We appreciate your focus on the customer impact and making sure that broadband rates do not increase due to government fees. Could you share with us how these proposals to assess broadband could affect consumer bills?**

The Universal Service Fund provides support so people across the country stay can connected to the communications services they need to participate in modern life. Since Congress last directed the FCC to establish the current contribution framework in the Telecommunications Act of 1996,

there have been revolutionary changes in how we communicate, with the need for a broadband connection eclipsing the home telephone as a need-to-have service. In the interim, the use of wireless services have grown tremendously, with many consumers now using them for the bulk of their voice communications.

When the FCC considers these changes, I believe it is essential that any reforms made to the Universal Service Fund contribution system take into account potential cost burdens on consumers. At present, 82 percent of Universal Service Fund contributors pass through the cost to their end-users. So any adjustment to the contribution system can have a direct effect on monthly bills that consumers pay for service.

On August 15, 2022, the Commission adopted a report on the future of the Universal Service Fund, describing different options to reform the contribution system. Some of the reforms in the report require legislative action and are not wholly within the authority of the FCC. The discussion in the report included expanding contribution obligations to broadband providers, expanding contribution obligations to providers of digital advertising, expanding contribution obligations to providers of other edge services, and a combination of contributions from some of these entities.

Since issuing this report, the agency has been working to identify the mechanics and cost of these changes to the Universal Service Fund contribution system. Based on publicly available data, we estimate that assessing broadband providers would expand the contribution base to \$250 billion, an increase of an additional \$220 billion in revenue above the current base. While this would significantly decrease the contribution factor, which is currently 34.4 percent, to 3.3 percent, it would *increase* the monthly bills paid by the average household. In fact, for the typical household it would change from an average Universal Service Fund line item of roughly \$2.00 on telephone bills to a combined total of \$4.00 on broadband and telephone bills. If on top of this the Affordable Connectivity Fund was added into the Universal Service Fund, it would increase the costs for the average household even further to approximately \$9.00 on broadband and telephone bills. In both circumstances, the monthly household payment would increase, even though the contribution factor would decrease, because the contribution factor would be applied for the first time not only to telephone bills but also to consumer broadband bills, which are generally higher than telephone bills. This expected increase on household bills is broadly consistent with the record in the report on the future of the Universal Service Fund, which reflected that assessing broadband would increase consumer broadband bills by \$5.28-\$17.96 per month.

It is also important to note that if broadband providers were required to pay into the Universal Service Fund, consumers would bear a larger burden of total fees than under the present contribution system, due to the proportion of broadband revenue that comes from residential customers. Currently, residential customers pay approximately 40 percent of Universal Service Fund contributions, with the balance paid by business customers. However, residential customers make up approximately 75 to 85 percent of mass market broadband customers. That means that residential customers will both see an increase in their broadband bills and also be responsible for a greater percentage of Universal Service Fund contributions with the addition of broadband into the contribution base.

3. The 5G Fund will have impacts that go further for rural connectivity, including connectivity needed for today's farmers. However, I am concerned that your draft order prevents some of the areas that not only don't have 5G, but are considered unserved and underserved, from being eligible to participate in the program, leaving those rural areas like my district, further behind.

Why does the FCC set eligibility thresholds at 7/1 in the 5G Fund Order - a threshold dramatically lower than industry 5G standards, as well as standards in other programs at the FCC - and will this negatively impact these rural areas like mine? Would a speed threshold more reflective of 5G needs be better?

I have shared with my colleagues a draft decision regarding the 5G Fund, which is an effort to modernize the system for universal service that helps support wireless infrastructure in rural, insular, and high-cost areas of the country. The goal is to update this system so that advanced, 5G mobile wireless broadband service is available to as many remote areas in the country where people live, work, and travel as possible. At the same time, this effort must ensure that the agency is a fiscally responsible steward of the Universal Service Fund.

The 5G Fund decision before the Commission takes important steps to support the build out of advanced, 5G mobile wireless broadband service to as many rural areas in the country where people live, work, and travel as possible. At the same time, it balances the Commission's obligation to be a fiscally responsible steward of the Universal Service Fund and ensure that its limited resources are used efficiently.

Under the eligible areas definition in the proposed 5G Fund, areas that receive 5G Fund support would include those that lack unsubsidized 5G mobile broadband service at 7 Megabits down and 1 Megabit up but have access to unsubsidized 4G LTE and areas that lack both unsubsidized mobile 5G service and any 4G LTE service.

This speed threshold reflects the minimum desired typical mobile user experience across broad 5G coverage areas. Excluding areas that already have this level of 5G service from eligibility for 5G Fund support will enable the FCC to target its limited universal service support funds to areas that do not have any mobile service at all or only have service offerings no better than 4G LTE. Conversely, using a higher speed threshold with the same funding would result in more service in underserved areas and less ability to support areas that are without any service at all. This result would impede our efforts to ensure that wireless infrastructure reaches all rural, insular, and high-cost areas of the country as the Communications Act requires.

- 4. Uncertainty about future spectrum access can inhibit new technology development and can have broad downstream impacts far beyond communications networks. To facilitate the safe and successful integration of remotely piloted aircraft, including Uncrewed Aircraft Systems (UAS) and Advanced Air Mobility (AAM) operations, there is a critical need for exclusively-licensed, dedicated spectrum for Command and Control (C2) communications. The Administration has acknowledged this by identifying the 5030-5091 MHz band to support C2 in the National Spectrum Strategy (NSS). The NSS Implementation Plan called for an additional study of this band that will not be complete until 2026, subsequently delaying access to the band for C2.**

Can the Commission provide an update on the 5030-5091 MHz band proceeding, including the next steps for networked access to the band, and any coordination with the NTIA because of the NSS?

I have shared with my colleagues a draft Report and Order that would adopt rules for non-networked Uncrewed Aircraft System (UAS) access in the 5030-5091 MHz band. The Report and

Order would establish rules that rely on dynamic frequency management systems to manage and coordinate UAS non-networked access to a portion of the spectrum to facilitate its safe and efficient use.

When the FCC began this rulemaking proceeding, the agency also sought comment on service rules for the 5030-5091 MHz band appropriate to the provision of commercial network services supporting UAS communications. At the same time, the FCC contemplated that service rules for the 5030-5091 MHz band will likely require development in phases. Consistent with this expectation, the draft Report and Order addresses the first phase, and the issues regarding service rules for exclusive-use licenses enabling network-supported services will be addressed in the future. This future effort may build on other efforts to engage stakeholders on the potential uses of the band and consider the appropriate regulatory measures to enable such uses, including but not limited to studies directed under the National Spectrum Strategy. To this end, it is noteworthy that the National Spectrum Strategy Implementation Plan provides that an inter-agency study working group for the 5030-5091 MHz band will be formed in March 2025 to perform compatibility studies and develop recommendations to expand non-federal and federal access in the band. The FCC is coordinating closely with NTIA on National Spectrum Strategy implementation, including work related to the 5030-5091 MHz band study.

5. Given the crucial role of reliable C2 for UAS and AAM operations, there is a pressing need to understand the timeline and steps involved for making spectrum available. However, considering the extended timeline for the 5030-5091 MHz band, there is a near-term alternative: the Air- Ground Radiotelephone Service channels between 454.675-454.975 MHz and 459.675- 459.975 MHz (the “450 MHz band”). The 450 MHz band is aviation dedicated and ready to support safety-critical UAS C2 communications today, pending a rulemaking with minor updates to allow uncrewed operations. Immediate action on this band would significantly advance UAS and AAM integration in the United States.

As the only other band available to support C2; can you please discuss the Commission’s timelines and specific steps that are being taken to expedite the availability of the 450 MHz band for UAS C2 by issuing a rulemaking?

The FCC recognizes the need for a range of spectrum bands suitable for C2 communications. This is clear from our ongoing work to ensure access to the 5 GHz band for non-networked UAS, our consideration of the 450 MHz General Aviation Air-Ground band, and our longstanding efforts to provide auctioned, geographic licenses in a range of bands with flexible use. With respect to Advanced Air Mobility, on January 14, 2021, the Wireless Telecommunications Bureau at the FCC granted a waiver of relevant part 22 rules to AURA Network Systems, allowing it to provide additional ancillary services, including services to UAS, to meet the needs of a broader base of aviation subscribers in the 450 MHz band. At this time, FCC staff is considering a petition for rulemaking filed by Advanced Air Mobility regarding whether the waiver order should become a long term rule change in the 450 MHz band.