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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 15

[ET Docket No. 18–295, GN Docket No. 17–183; FCC 20–51; FRS 16739]

Unlicensed Use of the 6 GHz Band

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Commission proposes to expand unlicensed use of the 5.925–7.125 GHz band (6 GHz band) while protecting the incumbent licensed services that operate in this spectrum. The proposed rules would allow a new class of unlicensed devices to operate throughout the entire 6 GHz band at power levels that are low enough to prevent the occurrence of harmful interference to licensed services. The Commission seeks comment on permitting unlicensed access points that are restricted to indoor operation in the 6 GHz band to operate at a power spectral density of 8 dBm/MHz with a maximum permissible equivalent isotropically radiated power (EIRP) of 33 dBm, an increase of 3 dB over the current rules. The Commission also seeks comment on permitting access points that operate under the control of an automated frequency coordination (AFC) system in the 5.925–6.425 GHz and 5.512–6.875 GHz sub-bands to be used for mobile applications. In addition, the document seeks comment on allowing access points that operate under AFC control to transmit with more power than the 36 dBm EIRP currently permitted.

DATES: Comments are due June 29, 2020. Reply comments are due July 27, 2020.

ADDRESSES: Pursuant to §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated in the **DATES** section of this document. Comments may be filed using the Commission's

Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- **Electronic Filers:** Comments may be filed electronically using the internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.

- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.

- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street SW, Washington, DC 20554.

- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID–19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20–304 (March 19, 2020). <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

- During the time the Commission's building is closed to the general public and until further notice, if more than one docket or rulemaking number appears in the caption of a proceeding, paper filers need not submit two additional copies for each additional docket or rulemaking number; an original and one copy are sufficient.

FOR FURTHER INFORMATION CONTACT: Nicholas Oros, Office of Engineering and Technology, 202–418–0636, Nicholas.Oros@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Proposed Rulemaking, ET Docket No. 18–295, GN Docket No. 17–183, FCC 20–51, adopted April 23, 2020, and released April 24, 2020. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center (Room CY–A257), 445 12th Street SW, Washington, DC 20554. The full text may also be downloaded at: <https://www.fcc.gov/edocs/search-results?t=advanced&fccNo=18-147>. People with Disabilities: To request

materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202–418–0530 (voice), 202–418–0432 (tty).

Synopsis

1. **Discussion.** The Commission proposes rules to expand unlicensed use of the 5.925–7.125 GHz band (6 GHz band). These proposals build upon the rules the Commission adopted for unlicensed use of the 6 GHz band in a Report and Order adopted on April 23, 2020, FCC 20–51 (85 FR 31390, May 26, 2020). In those rules the Commission permitted standard-power access points to operate under the control of an automated frequency coordination (AFC) system in the 5.925–6.425 GHz and 5.512–6.875 GHz sub-bands. Those rules also permitted low-power access points to operate indoors throughout the entire 6 GHz band. In this further notice of proposed rulemaking (FNPRM), the Commission seeks comment on options for further expanding unlicensed operations in the 6 GHz band. First, the Commission proposes to authorize operations that are not limited to indoor use—and, thus, must be very low power to protect incumbents. Second, the Commission seeks comment on increasing the power spectral density EIRP for low-power indoor operations from 5 dBm/MHz to 8 dBm/MHz. In addition, the Commission seeks comment on permitting mobile AFC controlled standard-power access point operation and on whether to allow higher power levels for AFC controlled standard power access points used in fixed point-to-point applications

2. **Very Low Power Operation.** Apple, Broadcom et al. have requested that the Commission permit very low-power unlicensed devices to operate in portions of the 6 GHz band with no requirements that the devices be kept indoors or be under the control of an AFC system. Apple, Broadcom et al. claim that this device class will be critical for supporting indoor and outdoor portable use cases such as wearable peripherals including augmented reality/virtual reality and other personal-area-network applications as well as in-vehicle applications. Apple, Broadcom et al. have requested that these very low-

power devices be permitted to transmit with 14 dBm EIRP and -8 dBm/MHz power spectral density EIRP.

3. The Commission proposes to permit very low power devices to operate across the entirety of the 6 GHz band, both indoors and outdoors, without using an AFC. This would make a contiguous 1200-megahertz spectrum block available for new and innovative high-speed, short range devices. The Commission seeks comment on this proposal. What are the benefits that these devices can bring to the American public? What use cases are envisioned for these devices? What form factors will be most useful for performing everyday activities? Will very low power functionality be built into existing devices such as cell phones or will they be standalone devices? What data rates are necessary to enable the enhanced applications envisioned for these devices? Over what distances will transmissions to very low power devices be necessary? Where are these devices most anticipated to be used and for what applications? The answers to these questions will drive additional comment and decisions on these devices as the fundamental decision that must be determined is how much power can these very lower power devices be permitted so that the potential of causing harmful interference to incumbent 6 GHz band users is minimized.

4. The Commission seeks comment on the appropriate power level for very low power unlicensed devices in the 6 GHz band. In examining what power levels the Commission should authorize, there are many factors that need to be considered, including body loss (as many use cases will be for body worn devices), use of transmit power control, antenna type and radiation pattern, use of a contention-based protocol and projected activity factor. As a threshold matter, similar to the requirements for low power indoor devices, the Commission proposes to require that 6 GHz band very low power unlicensed devices incorporate an integrated antenna. The Commission seeks comment on these proposals. Using an integrated antenna will ensure that users are unable to swap out the antenna for a higher gain antenna that could increase the potential for interference. The Commission assumes that the antennas will be omnidirectional and have minimum gain. Is that a good assumption? Are there other antennas anticipated for these devices?

5. As the Commission has found for indoor low power devices, should the Commission require a contention-based

protocol that requires devices to sense or listen to the spectrum prior to transmitting to ensure all unlicensed devices have an equal opportunity to transmit as well as to protect incumbent users? Commenters should address whether protocols such as Wi-Fi's current carrier sense multiple access with collision avoidance (CSMA/CA) would be used or are there other protocols that may work here too. Apple, Broadcom et al. contend that such a protocol will protect mobile Broadcast Auxiliary Service Incumbents in the U-NII-6 and U-NII-8 bands. The Commission seeks comment on the viability of relying on a contention-based protocol to protect these uses. Can this protocol also be used to protect Fixed Service microwave incumbents? What sensing levels are necessary to reliably detect incumbent services to protect them? Wideband and ultrawideband unlicensed devices operate in the 6 GHz band. Can the contention-based protocol be used to enable co-existence between various unlicensed device types? Commenters should provide detailed technical information on the contention-based protocol and how it can be used to protect existing 6 GHz band users (and whether a requirement to include a contention-based protocol would materially affect the spectrum very low power devices could use as well as the relevant power levels in order to protect incumbent services).

6. In determining the proper power level for very low power unlicensed devices using 160-megahertz channels, the Commission first notes that it authorized low power indoor devices to operate with 5 dBm/MHz power spectral density (PSD) EIRP and a maximum 27 dBm EIRP. This decision is based on an extensive record replete with multiple studies—both Monte Carlo and static link budgets. A major contributing factor to those analyses was consideration of building entry loss and the effect such propagation loss would have on protecting incumbent licensees from harmful interference. Building attenuation is a function of building construction type (traditional or thermally efficient) and the elevation angle of the signal path at the building façade. Because the major difference between low power indoor unlicensed devices and very low power unlicensed devices is that, for the latter devices, outdoor use would not be subject to building entry loss, how should the Commission evaluate the interference potential of these devices as many may be operating outdoors? Can the analyses performed for indoor low power devices

inform how the Commission proceeds here? The Commission notes that for many anticipated use cases, use will occur near the ground and in the presence of buildings and other objects further subjecting potentially interfering emissions to clutter losses. Accounting for clutter losses would infer that more power could be permitted without increasing the potential for harmful interference. How should the Commission account for clutter losses? What types of clutter losses would affect low power device signals? Because clutter losses, like building attenuation, is statistical, the Commission seeks information on clutter loss statistical distributions that would be appropriate to use in any analyses. What information is available? What are the minimum, maximum, and mean values that can be expected for various locations? How have these distributions been validated? Commenters should provide detailed information and reference material to support their claims regarding appropriate clutter losses to consider.

7. Other factors that must be considered when evaluating very low power unlicensed devices is body loss and transmit power control. The Commission anticipates that most of the devices contemplated for such operation will be body worn and subject to such losses. In their filings with technical analyses, Apple, Broadcom et al. assume that there will be at least 18 dB signal attenuation from body loss and transmit power control. Is this assumption realistic? The Commission seeks comment on the correct value to consider for body loss and transmit power control for these devices. Commenters should provide detailed technical analysis supporting the value(s) they believe the Commission should rely on to determine the maximum power level for very low power devices.

8. The Commission also asks commenters to address some specific technical solutions and use situations that it believes are likely to arise through typical operation. First, cell phones typically employ proximity or other sensors to determine if they are close to a body to adjust power to meet the Commission's radio frequency (RF) exposure rules. Could such a sensor be used in conjunction with these very low power devices as a way of adjusting their power based on how much body loss might be expected? How would such a system work to both ensure the ability of devices to close their links as well as avoiding causing harmful interference to incumbent licensees? Should such sensors be required on

these devices? If so, what parameters are essential and what algorithms would ensure proper power level tuning? How would interference to incumbent operations be protected when a very low power unlicensed device must use higher power when facing maximum body loss in the direction of its intended receiver, but no similar losses in other directions? For example, a cell phone in a backpack may be transmitting to a body worn device where the intended signal encounters a person's full mass in that intended direction, but no losses in other directions. Is this a reasonable scenario? What are the potential consequences of such operation?

9. Alternatively, in use cases where an unlicensed device may not encounter much body loss, how would transmit power control be implemented to protect incumbent licensees? For example, if a device is mounted on a bicycle handlebar and communicating with a body worn device, there would be no body loss and little clutter. The Commission seeks comment on other use cases and whether proximity sensors could be used and how transmit power control would provide sufficient power for the application and at the same time protect incumbent licensees. How does the expected geometry between these unlicensed devices, which presumably will generally be used close to the ground and fixed service microwave links which are generally high off the ground and employ directional antennas affect the power level the Commission can allow? What about the interaction for Broadcast Auxiliary Services?

10. The Commission seeks comment on how all these factors should be considered in analyses and the various technical solutions can work together to authorize very low power unlicensed devices across the 6 GHz band. The Commission seeks comment on the appropriate factors that should be incorporated into a link budget. The Commission also seeks comment on the appropriate way to model the potential interactions between unlicensed devices and incumbent operations. Should the Commission rely on Monte Carlo analysis, link budget analysis, link-level simulations that take into account detailed physical layer implementations of unlicensed devices as well as incumbent devices, or a combination of these methods? Regardless of which type of analysis commenters submit, all assumptions should be fully explained and supported and all methodologies explained in detail. The Commission also seeks comment on what technological measures can be incorporated into a very low-power

device to support the operations at the requested power limits and mitigate the potential for harmful interference to incumbent services?

11. In contemplating the various factors discussed, the Commission seeks comment on what power level the Commission should authorize for very low power unlicensed devices across the 6 GHz band. In this regard, the Commission notes that, similar to the rules the Commission adopted for indoor low power devices in a Report and Order adopted on April 23, 2020, FCC 20–51 (85 FR 31390, May 26, 2020), the Commission anticipates requiring devices to meet a power spectral density requirement, which inherently places a maximum on radiated power. Do commenters support this approach? Apple, Broadcom et al. contend that 14 dBm EIRP and –8 dBm/MHz PSD EIRP is necessary to enable the applications they anticipate for these devices. The Commission seeks comment on the power level and other technical or operational rules the Commission should consider to maximize the utility of the 6 GHz band and protect incumbent licensees. The Commission encourages commenters to also conduct testing and measurements of prototype devices to support whatever rules they advocate for. Such testing can be done under an experimental license to the extent needed. What technical measures will be effective in meeting the Commission's goals of balancing new devices against the need to protect incumbent licensees?

12. *Power Spectral Density Increase for Low Power Indoor Operation.* The Commission seeks comment in this FNPRM on whether to allow low power indoor devices to operate at a higher power spectral density of 8 dBm/MHz with a maximum permissible EIRP of 33 dBm when a device uses a bandwidth of 320 megahertz in the U–NII–5 through U–NII–8 bands. The Commission adopts 5 dBm/MHz in the Report and Order considering the analyses in the record based on limited measurements, Monte Carlo simulations and static link budgets, none of which fully capture a future deployment scenario involving a very large number of unlicensed devices operating in a complex interference environment. Analyses that can incorporate realistic environments, including accurate link-level and system level simulations or measurements which take into account the physical layer characteristics of both unlicensed and incumbent devices would be more convincing in determining whether a higher PSD such as 8 dBm/MHz should be adopted. For devices operating with bandwidths

other than 320 megahertz, the maximum allowable total power would scale accordingly (e.g., 30 dBm with a bandwidth of 160 megahertz, 27 dBm with a bandwidth of 80 megahertz, 24 dBm with a bandwidth of 40 megahertz, and 21 dBm with a bandwidth of 20 megahertz). The Commission believes that these rules would be useful for many indoor devices that require high data rate transmissions such as indoor access points communicating with clients like high-performance video game controllers, and wearable video augmented reality and virtual reality devices.

13. Would the proposed power levels be useful for low power indoor devices? What are the specific benefits to consumers and users of unlicensed operations of a higher power spectral density limit? Are the proposed power limits appropriate for preventing interference to authorized users in the U–NII–5 through U–NII–8 bands? Do the mobile uses of these bands present challenges to adjusting the power limits? Should the Commission adopt any other requirements in addition to power density and total EIRP limits to protect services in these bands? The Commission seeks specific comment on how a higher power spectral density limit would impact the analysis of Examples 1B, 4, and 5 from the AT&T study submitted to the Commission on November 12, 2019 in ET Docket No. 18–295, as well as how common those scenarios are. Proponents of low-power indoor operations have convincingly shown that even in these examples the likelihood of harmful interference to fixed microwave services will be insignificant with a power spectral density limit of 5 dBm/MHz. Is the risk materially higher at 8 dBm/MHz? Is so, is such risk still low (or even insignificant)? And how common are such scenarios? The Commission seeks specific comment from fixed service incumbents on what fraction of their operations do each of these scenarios represent. And is the Commission correct to surmise that these are worst case scenarios (as would be suggested by the incentives of those introducing these scenarios into the record) or do they actually represent a significant number of operations? Finally, the Commission seeks comment on the benefits and costs of the proposal. How should the Commission quantify the potential economic benefits of authorizing higher power spectral density for low power indoor devices and the potential cost to incumbent operations should interference occur?

14. *Mobile Standard-Power Access Point Operation.* The Commission seeks

comment on whether to allow standard-power access points, under AFC control, to be used in mobile applications under rules similar to those for personal/portable white space devices. Such usage would expand the area over which unlicensed 6 GHz devices can operate to deliver additional benefits to the American public. Mobile use at higher power levels than what the Commission is proposing, or very low power unlicensed devices could also enable new innovative applications. The Commission seeks comment on what benefits such usage could provide. What new applications are envisioned for higher power mobile operation?

15. The white space device rules limit personal/portable devices to a lower power level than fixed white space devices. Under the rules a personal/portable white space device must determine its geographic coordinates using an incorporated geo-location capability prior to its initial service transmission, each time the device is activated from a power-off condition, and at least once every 60 seconds while in operation. In addition, it must access a database to obtain a list of available channels for its location and must access the database for an updated channel list if it changes location by more than 100 meters from the location at which it last obtained its channel list. Also, a personal/portable white space device must re-check its location and access the database daily to verify that the operating channel(s) continue to be available. Further, it may load channel availability information for multiple locations, (*i.e.*, in the vicinity of its current location) and use that information to define a geographic area within which it can operate on the same available channels at all locations.

16. The Commission seeks comment on whether the Commission should allow mobile standard-power access point operation in the 6 GHz band, and if so, what technical requirements should apply? Are the personal/portable white space device rules an appropriate model to follow in developing rules for mobile standard-power access points? Which of those rules could be adopted for 6 GHz standard-power devices? Which of the white space rules would need to be modified for devices operating in the 6 GHz band? What other changes or requirements would be needed? Should the Commission define a separate device category for mobile standard-power devices? If so, how should these differ from fixed standard-power access points? For example, the Commission believes such devices would need an integrated geolocation capability and have an integrated

connectorized antenna. The Commission seeks comment on these requirements and any others that need to be placed on these devices.

17. What power limit would be appropriate for mobile standard-power access points? Could mobile standard-power access points operate at the same power as fixed devices or should they have a lower maximum power? How should the protection distances be calculated for mobile devices? What factors need to be considered to ensure that incumbent operations are protected from harmful interference? How often would mobile devices need to update their position? Should it be the same requirement as for white space devices which require updates every 60 seconds or when the location changes by more than 100 meters? Or, are other requirements more appropriate? Should the Commission allow devices to preload a list of cleared channels over an area (*e.g.*, create a geo-fenced area) and operate without updating location with the AFC system so long as they stay within the cleared area? Should mobile operation be permitted in both the U-NII-5 and U-NII-7 bands?

18. What effect would permitting mobile standard-power access point operation have on the AFC? Would allowing standard-power access points to operate while in motion make the AFC system overly complicated as it would need to continuously update available frequency lists for such devices? Would mobile applications add substantial congestion to links connecting devices to the AFC system as a moving device may need to be in near constant contact with the database, potentially degrading the quality of service for the expected predominant fixed access point use? Would the added complexity of mobile operation delay the AFC system development and prevent the American public from reaping the benefits of expanded unlicensed use soon? What costs would be involved with adding this capability? And, what additional requirements would be needed for 6 GHz unlicensed devices? Would additional information need to be communicated to the AFC system to identify whether a device is fixed or mobile? Would fixed devices need to be updated to send additional data too? How would this impact development of devices and the timeline for getting them into the marketplace? Are there additional security concerns associated with mobile operation? What are the costs that might be involved with permitting mobile standard-power device operation?

19. The Commission seeks comment on all technical and operational aspects associated with mobile standard-power device operation. Commenters should provide detailed technical analysis to support comments advocating technical limits and methods of protecting incumbent users from harmful interference. In addition, commenters should provide detailed support for any operational rules they believe could be adopted to expand 6 GHz unlicensed use to mobile standard-power operations while protecting incumbent operations from harmful interference.

20. *Higher Power Limits and Antenna Directivity for Standard-Power Access Points.* The Commission also seeks comment on whether to allow standard-power access points used in fixed point-to-point applications to operate at power levels greater than 36 dBm EIRP. In the Report and Order, the Commission limits standard power access points to a maximum 36 dBm EIRP power level to limit the range at which harmful interference could potentially occur. That approach deviates from the U-NII-1 and U-NII-3 band rules which permit higher power point-to-point operations, because of the different incumbent licensee environment in the 6 GHz band as compared to 5 GHz. To explore whether similar flexibility can be permitted in the 6 GHz band, the Commission seeks comment on whether to allow power levels greater than 36 dBm EIRP for standard-power access points operating in the U-NII-5 and U-NII-7 bands when configured as point-to-point links. As a threshold matter, the Commission believes that any flexibility provided for higher power should be used for targeted applications that would benefit from point-to-point operations, such as backhaul and not for point-to-multipoint use or as a scheme for providing more wide area service through multiple antennas aimed to cover larger areas. Thus, if the Commission allows higher power for point-to-point links, the Commission seeks comment on replicating the U-NII-1 and U-NII-3 band requirement on such links that would exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information.

21. The Commission seeks comment on the appropriate technical parameters and limits that would be associated with 6 GHz point-to-point operation. How would the Commission ensure that incumbent operations will be protected from unlicensed devices operating at higher power levels? For example, should there be a limit on the maximum

conducted transmitter power as is done in other U-NII bands to encourage parties to use higher gain, highly directional antennas? If so, what is the appropriate power limit? Should there be specific antenna requirements for standard-power access points operating at power levels above 36 dBm EIRP, such as a minimum gain or maximum beamwidth requirement? To limit the maximum EIRP and thus the distance over which stations could be potentially affected, the U-NII-1 band requires a 1 dB reduction in maximum conducted output power and maximum power spectral density for each 1 dB of antenna gain in excess of 23 dBi. Would a similar requirement be needed for the 6 GHz band? If so, what should be the antenna gain threshold for triggering the power reduction? Are any other requirements necessary to protect incumbent services? What modifications to the AFC system would be required to accommodate higher power point-to-point operations? Would any corresponding changes be needed for standard-power access points related to the information they exchange with the AFC? If so, how quickly could changes be made to the AFC and equipment? What costs are involved?

22. Regarding unlicensed point-to-point applications in the 6 GHz band, the Commission also seeks comment on whether the AFC system should be permitted to take the directivity of a standard-power access point's antenna into account when determining the available frequencies and power levels at a location, rather than assuming an omnidirectional antenna. The directional pattern of an access point's antenna could affect the identification of available frequencies at a location, because when the transmit antenna points away from a microwave receiver, the effect would be that the access point has a lower EIRP in the direction of the receiver. Under such situations, the required separation distance between the access point and microwave receiver would be shorter, which could increase the number of locations where a device could operate. Would taking access point transmit antenna directivity into account result in any significant increase in the amount of spectrum available to unlicensed devices?

23. If the AFC system considers access point transmit antenna directivity, how would the Commission assure the accuracy of antenna pattern and orientation information? Would the Commission need to rely on a professional installer requirement as the Commission does for certain stations in the Citizens Broadband Radio Service? If so, how would such a requirement be

implemented? Are there other ways to ensure reporting accuracy of this information? How could this information be supplied to the AFC system? Should there be an automated system, or could the Commission allow for a manual system or both? Should the Commission require the AFC system to store detailed information, such as the antenna gain at one-degree intervals, or could the Commission define several simpler generic antenna patterns that approximate commonly used antennas? What other criteria would the Commission need to specify to ensure that incumbent services are protected? Would the benefits of such an approach outweigh the increased costs and complexity of the AFC system and the risk that inaccurate antenna pattern information might result in harmful interference to incumbent services? If the Commission were to permit a change, what specific changes are needed to the AFC system? Are corresponding changes needed to the standard-power access points' software or hardware? How long would it take to make such changes? What costs would be associated with such changes?

24. *Procedural Matters. Paperwork Reduction Act Analysis.* This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4).

25. *Initial Regulatory Flexibility Analysis.* As required by the RFA, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities of the proposals addressed in this FNPRM. The Full IRFA is found in Appendix C at <https://www.fcc.gov/edocs/search-results?t=advanced&fccNo=18-147>. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines for comments on the FNPRM, and they should have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this FNPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with the RFA.

26. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

27. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be publicly available online via ECFS. These documents will also be available for public inspection during regular business hours in the FCC Reference Information Center, which is located in Room CY-A257 at FCC Headquarters, 445 12th Street SW, Washington, DC 20554. The Reference Information Center is open to the public Monday through Thursday from 8:00 a.m. to 4:30 p.m. and Friday from 8:00 a.m. to 11:30 a.m.

28. *Ex Parte Presentations.* The proceedings shall be treated as "permit-but-disclose" proceedings in accordance with the Commission's *ex parte* rules. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule § 1.1206(b). In proceedings governed by rule § 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system

available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in these proceeding should familiarize themselves with the Commission's *ex parte* rules.

Ordering Clauses

29. *It is ordered*, pursuant to the authority found in Sections 4(i), 201, 302, and 303 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 201, 302a, 303, and § 1.411 of the

Commission's Rules, 47 CFR 1.411, that this *FNPRM* is hereby adopted.

30. *It is further ordered* that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of this *FNPRM*, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

31. *It is further ordered* that the Commission's Consumer and Governmental Affairs Bureau, Reference

Information Center, shall send a copy of this *FNPRM*, including the Initial Regulatory Flexibility Analysis, to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

Federal Communications Commission.

Cecilia Sigmund,

Federal Register Liaison Officer.

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BILLING CODE 6712-01-P