

October 17, 2017

Ms. Marlene H. Dortch, Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, NW
Washington, DC 20554

Re: Promoting Investment in the 3550-3700 MHz Band; Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band; Petitions for Rulemaking Regarding the Citizens Broadband Radio Service, **GN Docket No. 17-258, 12-354, RM-11788, RM-11789.**

Dear Ms. Dortch:

On October 16, 2017, Harold Feld, Phillip Berenbroick, and Arian Attar of Public Knowledge ("collectively, Public Knowledge" or "PK") met with Kevin Holmes and Commissioner Carr. Separately, Public Knowledge also met with Louis Peraertz of Commissioner Clyburn's office. Both meetings addressed matters in the above-captioned proceedings.

Public Knowledge explained that the Commission should reject changes to the Priority Access License ("PAL") rules regarding license size, term, and renewability in the 3550-3700 GHz Band ("3.5 GHz Band" or "Band") proposed in the recently circulated draft Notice of Proposed Rulemaking ("NPRM").¹ The Commission should not delay putting the band to productive use – by both licensed and unlicensed users – in order to change long-settled issues that would merely benefit a single business model at the expense of competitors, innovative uses of the spectrum, and the public interest.

Public Knowledge strongly believes the PAL framework should be left unchanged. However, should the Commission insist on yet another round of comments regarding the proper framework to best incentivize innovative and efficient uses of the "innovation band," it should eliminate the current proposals in the draft NPRM to expand the size and term length of the PALs and instead ask open-ended questions to seek input from a broad array of interested parties regarding the most effective, efficient, and innovative licensing framework for the PALs. Seeking broad stakeholder input, rather than proposing a course with scant support in the existing record, is most likely to achieve the Commission's goals of promoting competition and innovation, closing the digital divide, and maximizing efficient spectrum use. Unfortunately, the Commission's current proposals are entirely unsupported by the record that preceded the draft NPRM.

PAL Size, Term, and Renewability

¹ See Promoting Investment in the 3550-3700 MHz Band, Petitions for Rulemaking Regarding the

The record contains diverse and overwhelming opposition to proposals to change the Priority Access License rules proposed in the draft NPRM. As written, the draft NPRM proposes to reverse the Commission's 3.5 GHz Band PAL framework, and bases its findings on filings by a handful of parties that are overwhelmingly controverted in the record and lack any economic analysis for overthrowing the existing 3.5 GHz PAL regime. At least nine out of ten comments in the docket generated by the T-Mobile and CTIA Petitions for Rulemaking opposed the NPRM's proposals to significantly expand the size and term of the PALs.²

The Commission's current spectrum sharing framework for the 3.5 GHz band, and its combination of small area, short-term licensing (PALs) and band-wide opportunistic access, open to anyone (General Authorized Access), has so far stimulated interest, and billions of dollars of investment activity and innovative use cases that exceed expectations. For example, the 47 companies participating in the Wireless Innovation Forum have spent tens of thousands of hours developing technical standards to implement CBRS, while 55 companies – including chipmakers, mobile carriers, cable companies, equipment manufacturers and more – have joined the CBRS Alliance. Multiple companies have applied for certification as SAS and/or sensing system (ESC) providers, while at least a dozen firms have obtained experimental authorizations to trial equipment and technology in the Band. Many of the investments and innovations already being deployed or tested by small operators and by chip and equipment makers suggest that the non-traditional approach to licensing in this small cell band will promote the public interest by facilitating a wide variety of new users and use cases. The changes proposed by the NPRM needlessly endanger this investment and innovation.

First, the NPRM's proposal to increase the license term from three years to ten years, with a presumption of renewability, is problematic because it benefits the specific business model of nationwide wireless carriers to the detriment of a large, diverse, and innovative group of potential users envisioned by the 2015 3.5 GHz Order.³ The Commission itself recognized in its 2016 3.5 GHz Order that non-renewable, short term licenses are necessary so “the broadest number of ‘users are able to efficiently target their use of the 3.5 GHz band to their specific needs...while permitting periodic market-based reassignment of these rights in response to changes in local conditions and operator need.’”⁴ Increasing the license term, with the possibility of renewal, will therefore push out many of the small and rural operators, new market entrants, and individual venues that the Commission envisioned would apply for PALs.

Second, the NPRM's proposal to expand the geographic size of the PALs will effectively make licenses unaffordable for rural or smaller broadband and wireless providers,⁵ undermining the Commission's goal to close the digital divide. The Commission intended for PALs to be affordable and accessible to a large number of users, including rural WISPs, office complexes,

² See generally Comments and Reply Comments in RM-11788 and RM11789.

³ NPRM at ¶ 13; Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 Band, GN Docket No. 12-354, *Report and Order and Second Further Notice of Proposed Rulemaking*, 30 FCC Rcd 3959, 3962 ¶ 6 (2015) (“2015 Order”).

⁴ Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band, GN Docket No. 12-354, *Order on Reconsideration and Second Report and Order*, 31 FCC Rcd 5011, 5022 ¶ 44 (2016).

⁵ NPRM at ¶ 23.

utilities, shopping malls, airports, and college campuses. By increasing license areas from census tracts to partial economic areas (PEAs), localized, smaller, and new users will be unlikely to apply for a PAL. Relying on large wireless providers to partition PEA-sized PALs so that smaller users can be accommodated, as the NPRM does,⁶ creates significant transaction costs for entities that would otherwise likely applied for census tract-sized PALs. Relying on partitioning also creates significant deployment delays for providers that intend to use the 3.5 GHz spectrum to deploy to unserved or underserved rural areas because those providers must first wait for carriers with the resources to invest in PEA-sized PALs to partition their 3.5 GHz Band spectrum. As discussed PK's Comments on the T-Mobile and CTIA Petitions for Rulemaking, auctioning PALs as large PEAs, or even counties, will make licenses prohibitively expensive for smaller and more locally focused wireless providers (e.g. WISPs), because they do not have the capital to outbid national or regional cellular providers.⁷ In concert, large license areas with long and perpetual license terms will: 1) push many, such as start-ups, market entrants, enterprises, innovators, and local institutions out of the PAL market entirely; 2) undermine rural broadband deployment; and 3) hinder innovative and efficient spectrum uses that are not part of the large wireless carrier business model.

Potential Impact of FNPRM on Exclusion Zones, and Impact of Exclusion Zones on Auctions, License Areas

The initial "Fast Track" Report of the National Telecommunications Information Administration ("NTIA") proposed exclusion zones to protect both coastal radar operations and ground radar stations further inland.⁸ These proposed exclusion zones would have excluded 60% of the U.S. population. In 2015, working cooperatively with the Commission and based on the expected business models and use cases as then understood, NTIA agreed to substantially reduce the exclusion zones as a matter of geography.⁹ Nevertheless, because most of the population of the United States lives within a short distance from the coasts, even the reduced exclusion zones prevented deployment 40% of the U.S. population, including the most important markets.¹⁰ Accordingly, NTIA and the Commission agreed to a complex multi-phase process to phase out exclusion zones and replace them with "protection zones," a process that requires development of new sensing technology and construction of a sensing network capable of interacting in real-time with the SAS.¹¹ Additionally, NTIA identified limiting use to small cell deployment, rather than permitting traditional cellular operation, as critical assumptions in reducing the exclusion zones.¹²

⁶ *Id.* at ¶ 31.

⁷ See Comments of New America's Open Technology Institute and Public Knowledge, GN Docket No. 12-354, at 19-25 (filed July 24, 2017).

⁸ See NTIA, An Assessment of the Near-Term Viability of Accommodating Wireless Broadband Systems in the 1675- 1710 MHz, 1755-1780 MHz, 3500-3650 MHz, and 4200-4220 MHz, 4380-4400 MHz Bands (Nov. 15, 2010) (Fast Track Report), available at http://www.ntia.doc.gov/reports/2010/FastTrackEvaluation_11152010.pdf.

⁹ See 2015 Order, Letter of Paige R Atkins, Associate Administrator, Office of Spectrum Management, NTIA to Julius P. Knapp, Chief, Office of Engineering and Technology, FCC (March 24, 2015) ("NTIA Letter"), at 4037-39 ¶¶ 254-268.

¹⁰ 2015 Order at 4142 (Statement of Commissioner Pai, Approving In Part, Concurring In Part).

¹¹ *Id.* at 4039 ¶¶ 261-62.

¹² NTIA Letter at 4-5.

NTIA also recommended, and the Commission adopted, requirements that commercial operations adapt to “evolving federal operations.”¹³

The dramatic changes proposed in the draft NPRM – particularly with regard to license size and renewal expectation – both potentially impact the ability to reduce the exclusion zones, and are in turn impacted by the exclusion zones. Yet nowhere does the draft NPRM reflect even a vague awareness of the exclusion zones. If the Commission proceeds to the NPRM, it should explicitly solicit comment on:

1. How would an auction of a larger area work in light of the exclusion zones and uncertainty surrounding the process when the exclusion zones would be transitioned to protection zones? Should the licensee of a larger area be required to fund the development of the proposed Environmental Sensing Capabilities (“ESC”) network, given that the licensee with expectation renewal will be the primary beneficiary of ESC capabilities?
2. Alternatively, does the uncertainty surrounding the transition of exclusion zones make larger license areas too uncertain to auction? For example, how would the Commission auction PEAs sized licenses when the most population dense areas are excluded from operation for an indefinite period? Should the Commission wait until creation of an approved ESC before holding a PAL?
3. Conversely, does the auctioning of long-term, wide area licenses undermine the basic assumptions used by NTIA in the 2015 analysis? Will licensees holding long-term licenses adopt traditional cellular architectures, requiring reversion to the much larger 2010 exclusion zones?
4. If the Commission proposes to limit deployment to small cells, so as not to disturb the underlying assumptions of the 2015 analysis, does that completely undermine the economic value of large license areas? How could providers limited to small cells profitably deploy service over large license areas?
5. Does the extension of the license term and expectation of renewal undermine the flexibility required to transition from exclusion zones to protection zones?

These questions represent a minimum requirement. As the Commission should recall, the one point on which there was *unanimous* agreement in the record was on the urgency of shrinking, and ultimately eliminating, the exclusion zones.¹⁴ It is therefore of paramount importance that the Commission ascertain whether the proposed changes will negatively impact the pathway developed by NTIA and agreed to by the Commission to move from exclusion zones to protection zones. Additionally, to the extent this rule change is premised solely on enhancing “investment” – and specifically investment in PALs – it is imperative that the Commission evaluate how the presence of exclusion zones in Phase I, and the uncertainty and cost associated with reaching Phase II, undermines the “enhancement value” of longer license terms.

¹³ *Id.* at 4.

¹⁴ *See generally* Comments in GN Docket No. 12-354.

Cost-Benefit Analysis

Lastly, the Commission should revise its calls for a cost-benefit analysis of alternatives to the draft NPRM's proposals to expand the license size and term. In their petitions to modify the PAL framework, CTIA and T-Mobile offered unpersuasive, largely unsupported arguments that merely reiterated their arguments in prior rulemaking proceedings and Petitions for Reconsideration. At no point did T-Mobile or CTIA provide any cost-benefit analysis that supported upsetting the settled 3.5 GHz Band PAL framework. Similarly, the draft NPRM offers no cost-benefit analysis to justify its proposals to upend the existing PAL framework. However, the draft NPRM directs commenters submitting alternative or hybrid proposals to provide cost-benefit analyses to support their approaches.¹⁵

Conducting a cost-benefit analysis is both a time-consuming and extremely expensive endeavor, and the administrative burden of a cost-benefit analysis becomes too large for many users. Neither CTIA, T-Mobile, or the Commission have provided any persuasive justification to support their proposals to overturn the existing PAL framework, yet the Commission appears poised to demand that parties that oppose the Commission's changes – the overwhelming majority of participants in the record – to submit detailed economic analysis that the Commission found wholly unnecessary as it drafted the NPRM. The Commission should not require affirmative cost-benefit analyses from commenters with alternative proposals, particularly when the neither the Petitioners, nor the Commission, provided a cost-benefit analysis to support their petitions or the draft NPRM.

In accordance with Section 1.1206(b) of the Commission's rules, an electronic copy of this letter is being filed in the above-referenced docket. Please contact me with any questions regarding this filing.

Sincerely,

/s/ Phillip Berenbroick

Senior Policy Counsel
Public Knowledge

cc: Commissioner Brendan Carr
Kevin Holmes
Louis Peraertz
Rachael Bender
Erin McGrath
Kate Black
Travis Litman
Donald Stockdale

¹⁵ NPRM at ¶¶ 16, 24-25.