

October 26, 2020

VIA Email: ic.spectrumauctions-encheresduspectre.ic@canada.ca

Innovation, Science and Economic Development Canada
c/o Senior Director, Spectrum Licensing and Auction Operations
235 Queen Street, 6th Floor
Ottawa, Ontario
K1A 0H5

Subject: ***Canada Gazette Part I, Volume 154, Number 37, SLPB-002-20 – Consultation on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band***

1. Pursuant to the procedures established in *Consultation on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band*, (“the Consultation Document”) the Canadian Communication Systems Alliance, Inc. (“CCSA”) hereby submits its comments.
2. CCSA speaks for independent communications distributors – smaller broadcasting distribution companies, telephone companies and ISPs – across Canada. CCSA represents more than 110 companies operating from sea to sea to sea, including across the North.
3. CCSA has had the opportunity to review, in draft, the comments of CanWISP in response to this consultation. Many of CanWISP’s members are also members of CCSA.
4. CCSA generally supports and endorses CanWISP’s analysis and recommendations.
5. Affordable access to spectrum, generally, is a huge issue for the smaller, mostly rural communications companies that CCSA represents.
6. That is especially true as rural telecommunications service providers increasingly rely on fixed wireless technology as a cost-effective means of extending the reach of

their broadband networks to extend service to currently unserved and under-served areas and communities adjacent to their existing networks.

7. CCSA agrees with and endorses CANWISP's comments and recommendations in the specific areas that follow.

Consultation Document, s. 5.2, Question 2 – Equipment Ecosystem

8. We note CANWISP's observation that, under the newly proposed framework, the gear currently used by the WISPs will require replacement to continue to take advantage of the 3,800 MHz band. That observation is consistent with anecdotal evidence from CCSA members that their installed equipment does not operate above the 3,900 MHz limit and, so, would not support network operation between 3,900-3980 MHz which has been proposed for shared use. In addition, some of this equipment may not be capable of TDD Synchronization with LTE base stations.

Consultation Document, s. 9.1, Question 14 – Option 2 Proposal

9. CCSA members have long sought the ability to offer “quad play” services and, with the CRTC considering the opening of mobile completion to MVNOs, CCSA is hopeful they may soon be in a position to do so, either as facilities-based providers or through partnerships with MVNEs.
10. For those reasons, CCSA supports CANWISP's submission that, with the development of “quad play” and 5G applications, existing WBS licensees will need access to the existing 50 MHz in the current 3,650 MHz WBS band and the 80 MHz proposed in the Consultation Document between 3,900 – 3,980 MHz.
11. In CCSA's view, availability of quality spectrum in those bands will be a critical enabler of the continuing competitiveness of independent WBS providers and the ability of those providers to maintain and extend their broadband networks in the rural and remote areas which many CCSA members serve.
12. The ability for members to deploy this quality spectrum on their existing remote, rural towers could bring high bandwidth fixed and mobile services to Canadians in areas continually overlooked by larger providers. Without adequate access to affordable mid-band spectrum for independents, remote and rural areas will continue to be underserved and may experience a reduction in service level and

coverage due to mid-band spectrum in these areas remaining under-populated and “locked up” by larger providers.

Consultation Document, s. 9.1, Question 15 – Option 2 Equipment Upgrade Costs

13. As CANWISP points out, the costs of upgrading both hardware and software will be substantial for smaller WISPs and, without funding support, will threaten their ability to continue effective service delivery through their fixed wireless networks.
14. As members have noted to CCSA, they face a significant problem in that, due to the unsure future of current WBS equipment, they have no choice but to continue to invest in currently available 2.4 GHz (ISM) capable equipment if they are to maintain and extend their existing fixed wireless networks in the near future.
15. It will be very important to them that equipment capable of operating in the 3,900 – 3,980 MHz band becomes available to them as quickly as possible so as to minimize their stranded investment in the 2.4 GHz (ISM) technology.

Consultation Document, s. 9.1, Question 16 – Option 2 Transition Timeline

16. A three-year transition period is too short for independent WBS providers and displacement from the 3,650 MHz band in that timeframe would almost certainly jeopardize their continued ability to serve the rural areas in which many operate.
17. Even if the equipment needed for operation in the new band becomes available within a three year window, it is likely to be available only at a significant cost premium until it has broadly penetrated the North American market.
18. Transition to operation above 3,900 MHz will essentially require smaller WBS providers to perform a complete equipment “forklift”. They will need a five-year transition period, at a minimum, to absorb the costs of the transition. It should be noted that the start date of the transition period should reflect the fact that manufacturers will require direction from an ISED decision before compliant equipment can be designed and manufactured.
19. Even with the longer transition period, CCSA expects that the independent WBS providers will need funding support from the UBF to support their transition to the upper portion of the band.

Consultation Document, s. 9.1, Question 19 – Option 2 Licensing Priority

20. CCSA considers that WBS providers who provide retail internet services through fixed wireless networks should be given priority access to the 3,900 – 3,980 MHz band with flexibility for mobile network use by WISPs to follow.
21. CCSA agrees, as well, that under a sharing structure similar to the CBRS in the U.S., WBS providers should be accorded the highest licensing priority.
22. In this respect, CCSA notes past experience with smaller providers being “muscled out” of access to shared spectrum by the large incumbents. For that reason, CCSA strongly recommends that the large, incumbent providers – who have ample access to high-quality spectrum fit for their purposes – be excluded from the shared band. CCSA regards that provision as being necessary to allow the independent providers to remain competitive.

Consultation Document, s. 10.1, Question 43 – Technical Limits and Coordination

23. CCSA joins CANWISP in strongly supporting ISED’s proposal to rely on technical limits and coordination procedures to address potential interference issues in the 3,650 – 3,980 MHz band rather than to mandate specific technology solutions.
24. The independent providers such as CCSA represents typically find ways to innovate to respond to the challenging economics of serving the rural communities in which many of them operate. Those providers should not be limited to specific technological solutions such as LTE with TDD Synchronization but, rather, should be encouraged to seek the most cost-effective solutions for delivering service to the Canadians they serve. Remote, rural areas could be foreclosed from the quality coverage afforded by this band if specific technology requirements increase deployment costs.

Consultation Document, s. 11, Question 52 – Auction and Set-Aside

25. CCSA supports the auction framework but, once again, emphasizes the need for spectrum to be made available in blocks that are affordable for independent providers.
26. In addition to its recommendation, below, regarding Tier sizes, CCSA strongly supports use of a set-aside as a key, pro-competitive measure. Use of a set-aside

mechanism could be used to encourage affordable access to spectrum by independent providers and, so, consistent with the Government's over-arching mandate of "Connecting Canadians", encourage extension of high-quality broadband service to Canadians regardless of where they live and work.

Consultation Document, s. 12, Question 56 – Licensing Tier Sizes

27. CCSA is aware of a number of its members who, although they operate in entirely rural areas, are nonetheless considered to be within the "large population" Tier 4 areas referred to at Annex D of the consultation Document.
28. That anomaly creates a serious barrier to the independent WBS providers' ability to secure affordable spectrum in blocks tailored to the rural service areas that such providers typically serve.
29. For that reason, CCSA strongly supports the use of Tier 5 licensing areas for auctioning spectrum in the 3,500 – 3,800 bands. Otherwise, CCSA fears that a number of its members will be effectively foreclosed by the cost of securing licences for the "large population" Tier 4 areas with significant resulting impairment of their ability to extend their fixed networks to serve new rural communities within their footprints.
30. CCSA agrees with CANWISP's recommendation of a 50% set-aside for the 3,500 and 3,800 MHz bands.
31. CCSA thanks the department for the opportunity to make these comments.

Sincerely,



Christopher J. Edwards
Vice-President, Regulatory Affairs

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