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Innovation, Science and Economic Development Canada  
Senior Director, Regulatory Policy, Spectrum Licensing Policy Branch  
235 Queen Street (6th Floor, East Tower)  
Ottawa ON K1A 0H5

[spectrumauctions-encheresduspectre@ised-isde.gc.ca](mailto:spectrumauctions-encheresduspectre@ised-isde.gc.ca)

## **Subject: Response to Comments for the Consultation SLPB-004-21**

### **Overarching Comment: Support for Access Licensing is Strong and Broad**

1. Nearly all commenters, including such notables as TELUS, welcome Access Licensing. This indicates that ISED's proposal is an innovative solution to pent up market demand for spectrum opportunities. Thus, the department should action Access Licensing as soon as possible so that the resulting benefits may accrue to Canadians.

### **Access Licensing to Open Spectrum Opportunities**

#### **Grid Cells Instead of Tier 5 Areas**

2. It appears that many parties, including those groups that oppose Access Licensing, recommend that the department subdivide tier 5 areas into smaller, more useable, tracts of licensed spectrum. CEA is in agreement with Redline Communications and Ecotel in believing we have collectively offered an effective solution to the department to achieve this subdivision. Namely the use of grid cells which are already used by ISED to subdivide geography for subordination. Grid cells will allow local licensing so that spectrum will be deployed everywhere it is needed as opposed to the current system whereby spectrum may be acquired but only a fraction of the area developed with the rest unserved.

#### **Access Licensing Throughout Canada**

3. CEA, and others including TELUS, Redline Communications and Ecotel, note that Access Licensing should be expanded to all areas of Canada for all bands in all locations. For clarity and to reiterate, CEA recommends that all unused 3GPP spectrum be open for Access Licensing, including urban, rural, and remote areas. Making spectrum allocation dynamic through licensing is how Canada can ensure that spectrum is available for those who would put it to use. We do recognize that work would have to be done by the department to enact this program, but that effort will reward Canadians with a complete use-it-or-share-it spectrum policy that will ensure the efficient use of spectrum wherever connectivity is required.
4. In addition to our recommendation that Access Licensing apply broadly CEA also recommended that existing WBS spectrum users be allowed to convert their WBS licenses into Access Licenses. And, we additionally recommended that PCS spectrum be re-issued for non-exclusive use at the tier 5 level and exclusive use at the grid cell level. These two recommendations in concert with making Access License apply broadly will ensure spectrum opportunities for everyone.

#### **Facilitated Subordination and Access Licensing**

5. CEA and TELUS do find some agreement with regards to facilitated subordination. While CEA's original position questioned the need for subordination under an expansive Access License framework we acknowledge the good points raised by TELUS in their response to Q45. The two systems, Access Licensing, and facilitated subordination, could work well together, but only if Access Licensing is made expansive in scope as CEA and others have recommended.

### Access Licensing and MVNOs

6. Groups including the Federation of Canadian Municipalities (FCM) and the Independent Telecommunication Providers Association (ITPA) do note a possible overlap between ISED's Access Licensing proposal and the CRTC's recent decision regarding MVNO's and tier 4 license areas. While interesting this feels like something that ISED can quickly work out with the CRTC to create an exemption based around Access Licensing. Just as it also feels like the possibly affected MVNOs could acquire spectrum licenses via Access Licensing and become MNOs. As such, CEA does not believe the challenges noted by FCM and ITPA are great enough to slow down deployment of Access Licensing but they should be addressed.

### Band 8 Systems for Private Broadband Networks

#### Private Networks Does Not Mean Commercial

7. Regarding comments made about how Band 8 may be put to use, CEA reminds all commenters who submitted that Band 8 could be put to use for commercial mobile and/or commercial fixed services that the consultation definitively states at paragraph 103

“ISED's underlying principle for access radio licensing is that spectrum be made available to parties seeking to use it for private networks”

8. Band 8's greatest value to Canada will be as a place that parties can build their private broadband networks and innovate using those networks. There is ample spectrum for commercial mobile and/or fixed services, but until this consultation and its Band 8 proposal there was not the necessary 3GPP spectrum for industry to use. Other jurisdictions including Germany and the UK have recognized the importance of spectrum dedicated for private networks and Canada should follow suite.
9. CEA again thanks ISED for proposing to designate Band 8 for private broadband networks and for recognizing the value of that designation in paragraph 7 of the original consultation document

“[I]ndustries may benefit from specialized uses, such as private networks, which enable a wide range of automated, robotic and remote operations such as real-time monitoring, dispatching and emergency notifications. While private networks would also enable operators to develop new business opportunities, these networks could also enhance safety and security for people, assets and infrastructure.”

10. As such CEA respectfully disagrees with all proposals that posit a use for Band 8 that is not for private networks. There are other tracts of spectrum that can be put to commercial use, especially if Access Licensing broadly applies as CEA and others have recommended, Band 8 is however not one such tract.

#### 45 MHz Band 8 Alongside 39 MHz

11. CEA is in agreement with a near universality of other commenters in our support for ISED to allow both the 45MHz standard Band 8 system as well as the modified Anterix version that uses the 39 MHz duplex. The reasons for which are related to the global 45 MHz Band 8 device ecosystem as well as 5G capability. Another particularly evident advantage of the 45 MHz Band 8 system is the availability of embedded sensors which are already available in high volumes, low cost, are physically robust, and offer high cybersecurity all of which are critical to crafting the Industrial Internet of Things (IIoT). CEA also notes that 200 kHz NB-IoT is available for 45 MHz Band 8 and CEA members are already evaluating this technology.



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12. The Anterix system will work well along the US border, as noted by Ecotel, and where spectrum is congested with incumbents and/or interference is a concern. The rest of Canada, including most, if not all, urban areas, will be able to safely deploy 45MHz duplex Band 8 systems with no risk of interference owing to both an absence of incumbents in most all of Canada and a careful management of those few incumbents that could be impacted. CEA recommends that the department consider the note from Redline that beneficial commercial agreements should be reachable between wireless microphone licensees and prospective Band 8 licensees if the Band 8 licensee cannot mitigate interference. However those occasions will be exceedingly rare and if an agreement cannot be made the Band 8 licensee would still have the option of using Anterix ecosystem equipment.
13. Those few who oppose allowing the 45 MHz systems appear to do so for reasons of 1) wishing Band 8 to be re-banded for commercial mobile use or 2) because of a vested interest in the Anterix ecosystem. To the first position CEA responds that there is already a great deal of mobile spectrum available, especially as Access Licensing is brought about, and what is needed for Canada's prosperity is spectrum that is allocated for private networks. To the second position, we respond that it would be best for Canada to coordinate with a global supply chain because it is that global device ecosystem that will best be put to work to build innovative private networks. There will remain a role for 39 MHz systems in Canada along the border and where interference with incumbents cannot be mitigated but the majority of Canada's private network needs will be best served with 45 MHz Band 8 systems.

## Conclusion

14. In closing we thank ISED for proposing innovative solutions to support critical infrastructure, industry and people in rural and remote locations.

All of which is respectfully submitted.

Sol Lancashire  
Manager Telecom Engineering, BC Hydro  
Chair, CEA Operating Technology & Telecommunications Committee

Channa Perera  
Vice President, Regulatory Affairs and Best Practices  
Canadian Electricity Association

