



December 7, 2021

From: Murray Hagan

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To: 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

Via email to: spectrumauctions-encheresduspectre@ised-isde.gc.ca

Re: Clearwater County Reply Comments - Gazette Notice SLPB-004-21 – Consultation on New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment

Dear Sir/Madam,

Attached below please find our Executive summary from Clearwater County, Alberta and the numbered responses to the initial comments submitted by Government, Industry, Organizations, and Individuals to Canada Gazette, Part 1, Consultation on New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment (SLPB-004-21).

We thank ISED for the opportunity to comment on this important matter and for considering our submission.

Sincerely,

On behalf of Clearwater County

For Murray Hagan, Director, Corporate Services, CFO

Cc: Cam McDonald

EXECUTIVE SUMMARY

Clearwater County (Clearwater) is a rural municipal district in central Alberta. The boundaries of Tier 5-509 Rocky Mountain House reflect the boundaries of Clearwater. The town of Rocky Mountain House does not reside within the jurisdiction of Clearwater County. Clearwater has a population of approximately 12,000 residents dispersed across almost 19,000 sq km of beautiful parkland and mountainous terrain. We are a community where residents, businesses, and public sector entities have minimal options for broadband services and are reliant upon slow and unreliable wireless and satellite services that are currently available for their internet services.

- ❖ We have reviewed the submissions by other parties to this consultation. Clearwater is pleased to see extensive support from the parties regarding ISED's key proposals that aim to enhance efficient allocation and the utilization of available spectrum in rural and remote regions of Canada.
- ❖ In general terms, we agree with ISED and the public interest interveners about the need to develop more effective spectrum allocation mechanisms that enable its maximal utilization for improving connectivity in rural and remote regions of Canada.
- ❖ We note that some parties have a clear preference for the status quo and stand in opposition to the reforms ISED has proposed in the Notice of Consultation (e.g., large incumbent wireless carriers). A second set of parties appear to conceptualize cheap (or free) spectrum access as a "silver bullet" for solving pervasive connectivity problems people are facing in rural and remote communities in all regions of Canada.
- ❖ In broad terms Clearwater agrees with ISED and "public interest" interveners that recognize developing new mechanisms that enable more efficient spectrum allocation and reallocation can play a part in expanding reliable wireless connectivity in rural and remote communities. Submissions by Organizations and Government clearly indicate the high-level changes are needed now as outlined in SLBP-004-21.
- ❖ A review of the National Broadband Internet Service Map ([National Broadband Internet Service Availability Map](#)) shows that more than 90% of the agricultural land in the three prairie provinces do not have 50/10 broadband service. Clearwater must stress that maintaining the status quo would not be an effective strategy for ensuring efficient allocation and use of available spectrum in rural and remote communities, nor would it help counteract Canada's growing rural-urban digital divide.
- ❖ Clearwater County appreciates that the three national carriers have made significant capital investments in the wireless industry. We recognize that making investments in telecom infrastructure is the job of telecom carriers; this investment point emphasized in their submissions to ISED and is not clear to us as a component of ISED's proposal for promoting efficient allocation of spectrum in rural and remote communities. If an entity has some private legal claim over public spectrum, however is not utilizing this public asset to deliver connectivity (or doing so efficiently/and in a timely manner), then there is no compelling economic or public policy justification to let his incumbent to "sit on it".

- ❖ We recognize that telecom companies who are making investments in telecom infrastructure should not prevent ISED to proceed with their (mostly) efficiency enhancing proposal as is outlined in this Notice of Consultation.
- ❖ Clearwater's follow up comments are being submitted from the perspective of increasing fixed broadband services in Clearwater as per its original submission. Given the large area (18,691 sq km) and relatively small population (12,278 residents), Clearwater wishes to reiterate the most cost-effective way to expand network capacity and improve service quality to the majority of users in Clearwater by private sector providers is likely to be via wireless technologies. In fact, private sector providers have little incentive to deploy wireline fibre access networks in our community (making Clearwater County commence an undertaking of this infrastructure for their communities). Both large and small local/regional providers are currently investing in upgrading their wireless networks. After reviewing the feedback of "Individuals", "Organizations" and "Industry", it is clear the lack of access to spectrum is a major impediment to the expansion of 50/10 broadband services throughout Alberta.
- ❖ Clearwater's follow up comments will revolve around the following topics:
 - Large Carrier Comments on the need for the SLP-004-21 Framework
 - Spectrum Usage and Equipment
 - Tier 5 Areas Versus Hexagons
 - Interference and Coverage Considerations

COMMENTS:

FB1: Feedback on Large Carrier Comments on The Need for the SLP-004-21 Framework.

1. Bell Mobility states in Paragraph ES4 that "Canada's facilities based wireless providers have spent tens of billions of dollars on network deployment, spectrum auction payments, and annual spectrum licence fees since the introduction of wireless services" and Canada has "networks that cover more than 99% of the Canadian population". While the facilities-based service providers claim to provide wireless services to 99.7% of the Canadian population as indicated in Bell's reference to the CRTC Communications Monitoring Report ([Communications Monitoring Report \(crtc.gc.ca\)](https://www.crtc.gc.ca/eng/commmonrpt/commmonrpt.htm), page 48), Figure 4.7 "Broadband service availability by speed" on page 105 of the same report shows that 87.4% of Canadian households had access to 50/10 Mbps in advertised speeds and unlimited data in 2019. Given that the rural population accounts for 18.4 % of Canada's population ([Canada - Rural Population - 2021 Data 2022 Forecast 1960-2020 Historical \(tradingeconomics.com\)](https://www.tradingeconomics.com/canada/rural-population)), it is clear that the large majority of the rural population does not have 50/10 service even though they may have mobile coverage.
2. Clearwater submits that equating wireless service coverage with 50/10 Mbps advertised speeds and unlimited data is not valid. Clearly the large majority of rural population is underserved.

3. Bell Mobility Inc states that it believes “there is no demonstrated need that supports such a drastic change in the existing licensing framework” (paragraph ES4 of submission). We disagree. In our view, there is a strong demonstratable record of clear evidence on the record of this consultation, as well as many others at ISED before this, that there are frictions in efficient allocation and use of spectrum that negatively impact third party utilization in rural and remote communities.
4. Rogers Communications, similarly, “believe the current subordination regime should be preserved” (paragraph E7 of submission). SaskTel “does not agree with the Departments proposal to implement a new Access Licensing framework...” (paragraph 3 of submission). Shaw does not “consider it necessary for the Department to pursue a more aggressive role in driving secondary market transactions” (paragraph 9 of submission). Clearwater strongly disagrees and believes that it is in fact a fundamental responsibility of ISED to support the development of an efficient and liquid secondary market for spectrum trading that enables the maximal utilization of this public asset in a manner that benefits Canadian consumers that live and work in rural areas and remote communities of the country. There is no evidence on the record that support claim that the development of a vibrant secondary spectrum trading market would negatively impact investment incentives or network service quality in rural areas of Canada.
5. Clearwater submits TELUS’s submission of “use it or share it” is novel, but as it is proposed it is not practical. No organization is going to build and offer wireless broadband services if the access licence obtained from the TELUS-style “use it or share it” model is “temporary in nature with one-year terms and no expectation of renewal” knowing that they could be displaced with a short notice period of three to six months (paragraph 25). It is not possible to raise investment capital to provide wireless broadband services knowing that a person may have to shut down the service within 1 or 2 years. In addition, TELUS made no effort in describing what service provider transition would look like from a customer perspective (e.g., service outage duration during commissioning of replacement TELUS service, pricing changes, etc.).
6. Clearwater submits there is room for improvement on how the facilities-based service providers can support the roll out of wireless 50/10 services. Their arguments about the sufficiency of status quo arrangements in opposition to ISED’s proposals in this matter lacks merit.

FB2: Feedback on Spectrum Usage and Equipment Options

1. As in its original submission, Clearwater submits that all the proposed spectrum bands from the lower TV white space bands to the 3800 MHz bands should be available for wireless broadband service. Clearwater appreciates coordination issues with the USA needs to be managed along the border. While coordination of some bands within 200 km of the border may be an issue, it should not have a major impact on what equipment can be used further north of the border. Clearwater requests ISED does not unnecessarily limit options.

- a. RF channel bandwidths need to be sufficiently wide enough to support CRTC 50/10 Mbps objectives. Consider the case where a WISP knows from previous experience that they need two 20 MHz channels to provide 50/10 data services to 300 users within a given coverage area and it has been determined the most cost effective and efficient use of spectrum would be to operate a system in the lower bands (i.e. TV white space or 600 MHz). ISED needs to ensure channel bandwidth in the most effective band could support such a system. Clearwater appreciates channels with narrower bandwidth are useful for mobile services and IoT applications.
 - b. TX/RX channel spacing requirements should be selected in such a manner that local service providers have the ability to select systems from a large pool of equipment providers.
2. Clearwater still believes channel access should be open to all organization (e.g., First Nations, not for profit, co-op, municipalities, etc.) that are registered or register as Non-Dominant Carriers and meet the appropriate regulatory reporting requirements. All applications for Access Spectrum Licensing must follow the same process and meet the same technical requirements.
 3. Clearwater believes the cost of licencing and annual licence fees be kept as low as possible. Barriers to entry such as re-occurring costs need to be minimized as much as reasonably possible.
 4. Clearwater strongly supports the SLPB-004-21 initiative. After reviewing other submissions, Clearwater submits that the ISED conclusions should not limit the types of platforms that can be used to provide 50/10 services as long as roll out of such systems do not cause interference with existing services.

FB3: Feedback on Tier 5 Areas Versus Hexagons

1. Clearwater observed a large number of submissions commented on using regions smaller than Tier 5 regions for a variety of reasons. Clearwater originally submitted, and still believes that Tier 5 regions may not be granular enough for access spectrum licences, especially at higher frequencies. Clearwater believes 25 km² hexagons would be a more appropriate way to manage subordination in all bands above 600 MHz.
2. Clearwater submits that using hexagons at higher frequencies could further increase the efficient re-use of spectrum. In larger Tier 5 regions it may not be feasible for a single local service provider to install services in the entire region in a timely manner, but it could be possible for a small number of competitive service providers to cover the entire region. In such a scenario the same frequency resource can be re-used multiple times (subject to interference issues) to multiple local service providers within the same Tier 5 region.

FB4: Feedback on Interference and Application Considerations

1. Clearwater strongly agrees there is a need to protect existing wireless cell sites from interference from new sites that are used to provide mobile or fixed data services. This is in alignment with comments submitted by other stakeholders. Clearwater believes this is key to protecting the current user experience on current systems.
2. As per Clearwater's original submission, all applications should be submitted with coverage prediction studies, interference studies, equipment details, ISED radio type approval numbers, execution plan, and business plan. All technical submissions should be authenticated by a qualified professional engineer.

CONCLUSION:

- ❖ Upon reviewing the comments submitted by others, Clearwater still believes its original position is very valid. The above comments are provided as supporting feedback the original submission.
- ❖ Clearwater County strongly encourages ISED to develop new mechanisms that enable more efficient spectrum allocation and re-allocation as fast as possible that will result in expanded reliable wireless connectivity in rural and remote communities.
- ❖ Making minor non-impactful changes that essentially supports maintaining the status quo and creates unproductive outcomes to address the current unsatisfactory situation, which ISED is trying to rectify, is not a viable option.