



Trois-Rivières, December 7, 2021
(by email: spectrumauctions-encheresduspectre@ised-isde.gc.ca)

Senior Director
Regulatory Policy, Spectrum Licensing Policy Branch
Innovation, Science and Economic Development Canada
235 Queen Street
6th floor, East Tower
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**RE: Reply comments regarding Consultation on New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment
(Canada Gazette, Part 1, August 4 2021, Notice number SLPB-004-21)**

Dear Sir / Madam,

1. ECOTEL Inc. ("ECOTEL") is pleased to submit these reply comments to Canada's Minister of Innovation, Science and Economic Development in response to Consultation on New Access Licensing Framework, Changes to Subordinate Licensing and White Space to Support Rural and Remote Deployment
2. ECOTEL is a registered Wireless Service Provider licenced in several areas across Canada to operate wireless LTE networks addressing markets in remote regions where other wireless service providers provide limited services.
3. ECOTEL's primary mission is to design, deploy and operate highly secured private LTE cellular networks targeted to mission critical and specialized industrial applications for the Oil, Mining and Utilities markets.
4. ECOTEL is a pioneer in the 4.0 industry revolution, bringing the companies in the mining and oil industry into this new technological era and helping them to increase their efficiency and improve workers security. ECOTEL is allowing new generation of workers to safely and remotely controlling mining equipment located 3 km underground. ECOTEL is now exporting Canadian technologies and knowledge to industries operating in various countries.

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5. In addition to its industrial focus, ECOTEL also deploys and operates cost effective LTE cellular networks aimed at providing Data & Voice mobility services to remote & rural communities or enterprises.
6. ECOTEL was granted the first subsidy from Federal and Provincial Governments to offer broadband services along the 155 road and in adjacent municipalities and communities in Haute-Mauricie and Lac-St-Jean. Unfortunately, spectrum subordination delays has been slowing down the project aim to bring high speed connectivity to remote areas.
7. During the COVID pandemic, ECOTEL has been connecting several industrial and residential customers located in remote areas.
8. ECOTEL is continuously seeking access to new spectrum and, in addition to existing spectrum licences owned, ECOTEL constantly tries to negotiate spectrum subordination agreements with other carriers in different locations in Canada though so far with very limited success.
9. As an active actor in the IoT market, building creative solutions for its customers for more than a decade, ECOTEL acquired a privileged view and understanding of this market and its key components (spectrum regulation, technology, business drivers, etc.)
10. As a worldwide leader, ECOTEL is now doing more international projects than Canadian projects due to the lack of spectrum in Canada. Industries in Chile, Mexico, USA, Africa, Germany, France and Australia are becoming more efficient than Canadian industries simply because they have access to spectrum, a prerequisite for automation projects.
11. ECOTEL believes that current unused spectrum in rural and remote areas has been a key contributor to the current digital divide we see today and one can easily anticipate that the current spectrum hoarding regime, which is taking place in rural and remote areas of Canada, will continue to contribute to the digital divide if ISED does not imperatively change the rules to let the Innovators access the spectrum they desperately need.
12. ECOTEL is providing comments based on the submissions of other parties.
13. Clearwater County submission is an eloquent representation of the reality with which many Canadian rural communities must live with. Starting with the use of potentially interfered spectrum (WBS), while better suited mid and low band spectrum is left unused. And, now having to rely on the hope of getting a portion relocated spectrum

in the 3900 MHz band. Despite all these hurdles, they planned the roll-out of a backbone infrastructure in the hope of attracting eventual operators. This shows how critical a decent service for the perennity of the communities and how far the regional governments are willing to invest to support it.

Make unused spectrum available to motivated entities

14. As explained in CANWSIP submission, existing large licensees had almost 4 decades to deploy stations in the various licensed service areas. For economic reasons they neglected to invest in remote and rural communities.
15. These operators, have a proven economic model that works perfectly in populated areas. Threatening them by imposing additional deployment conditions is not likely to benefit the communities but instead, if we can learn from the past, is very likely to create another Inukshuk-like disaster where additional radios (ghost radios) will be added on existing sites to “technically” meet the license conditions. This would be detrimental to both parties. Forcing larger operators to freeze Capital on poor ROI projects and leave the communities in the status quo.
16. ECOTEL experience in the Haute Mauricie project made it realized that despite generous government subsidies, larger Telcos cannot efficiently operate services in remote and very rural area. As an example, prior to ask ECOTEL, local authorities have petitioned all the large telcos to partner with them in the Haute Mauricie Project. Every single one declined the offer stating that it was not operationally viable.
17. The regulator must formally accept the fatality that the larger licensees will not provide service in unserved areas in the next 40 years and should tailor its policies accordingly.
18. As such, ECOTEL is suggesting to let the larger licensees operate in their actuals active locations, and make the currently unused spectrum available to “Highly motivated” entities (as worded by CANWISP) for which the end game is to serve rural and remote communities.
19. To foster innovation, ISED should immediately release the 900Mhz spectrum in both urban and rural areas for 5G initiatives lead by mission critical entities.

Efficient allocation of the spectrum

Allocation area

20. Spectrum access policy, as explained in various submissions, has to be tailored to meet the end game which is to provide service to current under/unserved communities.
21. As such, an efficient allocation of the unused spectrum should not be driven nor limited by a pre-established license area boundary, but it should instead provide the most possible flexibility to address the problem. Thus, the Department should not limit the application of its policy uniquely on tier-5 area as this could, as explained in submissions, lead to the creation of orphan communities, i.e. communities located far outside of a population center of the given tier-5 currently considered as “served” (as explained in the Rural Municipalities of Alberta submission).
22. In order to maximize the benefits for a maximum of Canadians, the use of grid cells should be considered to define allocated spectrum area. This level of flexibility would 1) maximize the additional coverage while 2) reducing the potential interference.
23. Finally, this level of precision would also permit to carve more than one allocation area within an equivalent tier-5. The end game is to maximize the potential service.
24. By putting in place an efficient and flexible allocation process, the Regulator will reduce the number of spectrum subordination dispute between large operators and other entities.

Allocation time

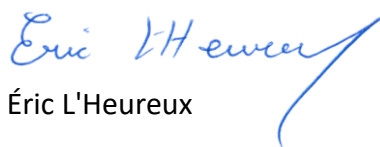
25. Spectrum should be allocated for such a predictable amount of time that it would make economic sense for whoever wish to invest. Some submissions referred to a period of time equivalent to the amortization of the equipment. When looking at the long term infrastructures required to provide service such as towers, there should be a provision in an eventual policy to extend or renew the allocation over the initial 5 years, subject to conditions such as continuous operations.
26. One would then understand that the “used-it-or-shared” as proposed by one of the large operators it just not viable from a simple investment standpoint. The level of realism of this “use-it-while-I-think-about-it” approach just highlights the biased hegemonic position adopted by the large licensees with regards to rural service.

27. ECOTEL agrees with BELL that ISED should not impose additional deployment conditions. As explained above, this is likely to end in a lose-lose situation. Instead ISED should make all the unused spectrum available for access by parties wishing to offer services to under or unserved communities.
28. BELL's affirmation that ISED has provided sufficient access to spectrum resources led ECOTEL to believe that BELL is confusing two distinct aspects which are : 1) increasing competition within Canada by allowing additional regional player to access spectrum at reasonable price to compete with the big 3 and 2) provide a means for entities wishing to offer service in under or unserved communities by accessing suitable unused spectrum.
29. The WBS spectrum by itself cannot be considered suitable spectrum to provide service to communities on a long-term horizon. Without getting into the details, the softly licensing nature and the limited amount of bandwidth are limiting factors when trying to cope with a traffic volume that grows at 30% per year. 5 GHz and 6 GHz, with limited propagation characteristics will not constitute a panacea as well. Like ROGERS is stating in its submission "Spectrum is the lifeblood of wireless networks, and access to exclusive, interference-free spectrum is necessary for facilities-based operators to continue increasing coverage and capacity to benefit Canadians". This affirmation is true for all operators, CANWISP members included.
30. ECOTEL considers that BELL is leading the Department to false conclusions when it implicitly argues that subordination of spectrum between BELL and TELUS is the proof that the subordination of licences are "an effective means to facilitate access to spectrum... across all regions of Canada". Other set of eyes could interpret this more as mean to "divide and conquer" the Canada regions by redistributing spectrum between both entities.
31. The Subordination process when compared to Spectrum Access procedure, as proposed by ISED, leaves the decision to the licensees which is by nature biased. ECOTEL believes that Canadians would be better served if the Regulator would be the entity making the decision rather than enabling other entities to substitute themselves to the Regulator.
32. BELL is basically saying that the fact that it spent billions of dollars to provide service to 99% of the Canadians population is the proof that ISED policy objectives are already being met. It clearly illustrates a disconnection with the reality of the under and unserved communities which is the motivation behind this ISED proposed new spectrum Access Licencing policy proposal. It's also the reason why ECOTEL believes that we cannot expect the larger licensees to solve the digital divide. They are focused on the populated areas and the remaining 1% is a burden for them.

33. ECOTEL would also like to highlight in BELL's submission that the high price paid for spectrum is a conscious choice made by the large telcos to prevent any form of additional competition.
34. TELUS is putting forward a valid argument that Access licensing should be extended to all licensed bands. ECOTEL agrees with this approach as well as with the "use-it-or-loose-it" suggestion. However only the unused portion of license area should be made available to others. The idea is not to penalize the licensees but the enable service in under/unserved communities.
35. ROGERS is pointing out in its submission that ISED should not force the Access Licensing regime to licensees like ROGERS that continues to work with rural and remote operator to subordinate spectrum.
36. ECOTEL believes that the proposed regime would remove the subordination burden from licensees like ROGERS. Again, the guiding principle should be to help improve the service not to withdraw the licenses.
37. ECOTEL understands ROGERS grief about the additional deployment conditions of 850 MHz and PCS licenses. This is not the way ISED should go. Instead, the Canadians would be better served if the large operators could continue to focus on the already well served regions while unused spectrum could quickly be made available to entities wishing to offer service to under and unserved communities.
38. Finally, ECOTEL would like to point out that the larger portion of the benefits of 5G for Canada will not come from the current legacy operator model. Instead, it will come from an improvement of Canadian Industries efficiency enabled by 5G mostly in the context of private networks. That's how Canada's lead with respect to 5G should be measured and not only from a legacy operator point of vu as depicted by ROGERS in its submission.

ECOTEL thanks the Department for the opportunity to provide these comments.

Yours truly,



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President and CEO

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