



Montreal, August 10th, 2017

(by email: [ic.spectrumauctions-encheresdspectre.ic@canada.ca](mailto:ic.spectrumauctions-encheresdspectre.ic@canada.ca))

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

**RE: Additional Comments to Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum  
(Canada Gazette, Part I, Gazette Notice SLPB-002-17, posted on June 15, 2017)**

Dear Sir / Madam,

1. After reviewing comments from interested parties on Consultation on a Licence Renewal Process for Advanced Wireless Services and other Spectrum, Ecotel Inc. ("Ecotel") is pleased to submit these additional comments to Canada's Minister of Innovation, Science and Economic Development.
2. Ecotel reiterates that conditions of renewed licenses should include deployment level on the basis of tier-4 areas for both AWS1 and PCS G-block bands. Both spectrum bands are well supported by an important equipment ecosystem
3. Of note, we realized we mistakenly mentioned in our first submission that nearly 2000 devices globally support band 25. This is true for AWS1 band, but for band 25, the current ecosystem is more around 400 devices today. However, though there was some delay in the development of the ecosystem for the PCS G-block, it is now rapidly expanding and one can expect it will be well developed in the near future. As a result, we believe the current state of the ecosystem should not be a factor when deciding whether or not deployment level on the basis of tier-4 can be supported for band 25, especially for license terms of 20 years. Radio equipment is already available today and can be deployed in the field. Band 25 can be aggregated today with band 5 (850 cellular) and band 12 (lower 700), and any new aggregation schemes could be added through software upgrade in the future. Also, band 25 is already defined for Narrowband Internet-of-Things standard.

ECOTEL

877-376-3776

MONTRÉAL - 2570 Letourneux, suite 3, Montréal, QC, H1V2P4

[info@eco-tel.co](mailto:info@eco-tel.co)

[www.eco-tel.co](http://www.eco-tel.co)

4. Covering remote areas has been a subject of discussion for years. Yet, several municipalities and communities across our country are still lacking the basic services the rest of Canada enjoys for several years.
5. Ecotel understands the challenges of covering current unserved and underserved regions and the fact that it is difficult for Incumbents and 2008 New Entrants to make a business case out of it or get an acceptable return for them in comparison to other value creation projects they might have.
6. However, other small carriers, municipalities or private enterprises have the will to offer service in those regions in a more timely manner should access to spectrum be facilitated.
7. Working with rural and remote regions for years, Ecotel is well aware of the challenges when offering coverage in these regions. Harsh environment, small population, lack of backhaul facilities, etc. Still, there are interested parties that would be interested to partner with Ecotel if spectrum could be made available.
8. We summarize below our additional comments and raise concerns from the reply comments received from interveners by the Department for this Consultation.
9. After reviewing reply comments from all interested parties, the great news is, there appears to be a consensus amongst most of the carriers that, for AWS1 spectrum, tier-4 deployment levels can be supported.
10. Ecotel continues to believe that a 5-year condition on the basis of tier-4 license areas is required and is achievable for both AWS1 and PCS G-block.
11. As such, we agree with Telus' suggestion that for AWS1, a 5-year deployment condition is achievable. As stated by Telus: "eight years is more than ample time to reach these deployment levels and would prefer that licensees be required to achieve these levels within five years of the new licence term for the benefit of Canadians".
12. We note however that interveners mentioned some reasons to justify license renewal not be on a per tier-4 deployment level with some emphasis on PCS G-block. We comment these reasons below.

### REASON 1: G-BLOCK ECOSYSTEM

13. Some interveners identified the non-mature ecosystem for G-block being an issue. We addressed this element in previous paragraphs above and believe that the ecosystem for G-block is continuously developing and will not be an issue, especially for a license term of 20 years.

### REASON 2: THE "NEW ENTRANT" FACTOR

14. Some New Entrants mentioned that they are still at disadvantage compared to incumbents due to several reasons including deployment ramp-up and delays in deployment due to mandated roaming and tower sharing still not working efficiently.
15. As stated by Eastlink, "For new entrants, the Tier 4 requirements would force new builds in very specific markets, redirecting resources from areas where we may currently have network expansions planned."
16. Also, based on other replies from New Entrants, there still seems to be issues with tower sharing arrangements and roaming rates after almost 10 years from the auctions and this situation seems to impact New Entrants by delaying their deployment plans.
17. Understanding challenges New Entrants are facing, Ecotel continues to wonder what is required before unserved and underserved regions are covered. Current licensees had 10 years to deploy according to tier-2 levels. The Department now proposes another 8 years to reach tier-4 levels. So basically, after 18 years in a fast technology-changing environment, unserved and underserved regions seem to be meant to remain unserved and underserved regions. And if the Department agrees not changing the deployment conditions, taking into account 20-years terms, this topic will only be discussed again sometimes around 2038.
18. If tower sharing and mandated roaming are still not functioning optimally, we believe it is due time to fix this issue. However this is a different topic that should not prevent tier-4 deployment levels. We need to keep the focus on covering the remote regions through the right deployment levels.

### REASON 3: MID-BAND SPECTRUM NOT APPROPRIATE FOR COVERING REMOTE AREAS

19. One important concept seems to arise from the replies and from which there seems to be a consensus amongst incumbents and 2008 New Entrants carriers: that AWS1

and PCS G-block are best suited for urban deployment and that lower bands should be used for rural deployment instead of AWS1 and PCS-G. That this element is raised now, almost 10 years after the 2008 auctions, is very astonishing to us.

20. If we talk about spectrum in general and the coverage principles conceptually, Ecotel is not in disagreement with the fact that lower band spectrum would certainly help in covering more with less sites.
21. But this is not what is at stake here. What is at stake is that, if we let this conceptual view dictate keeping the deployment levels at minimum, and if the right license conditions are not implemented, there is clearly a possibility that mid-band spectrum such as AWS1 and PCS G-block will not or never be deployed in some regions by incumbents and 2008 New Entrants carriers. This was certainly not the objective when this spectrum was auctioned. And Sasktel clearly made the point that "This is far more RF bandwidth than would be necessary to serve the residents in these sparsely populated areas, and would simply be a wasted investment."
22. As a result, Ecotel believes this spectrum should be made available to any parties that wish to deploy a private or rural network and put this spectrum to use, spectrum that otherwise would never be used in those specific areas based on arguments that mid-band spectrum is not appropriate to cover remote regions. Ecotel is ready to use this spectrum to cover those regions if this spectrum is made available to us.
23. If we continue in the same vein, Eastlink mentions, that AWS1 spectrum would not be appropriate for rural deployment and that lower band spectrum such as 600 MHz would be preferable. Again, such a statement would mean that higher band spectrum like AWS1 and PCS G-block would practically not or never be used in rural and remote areas until such time there is a need for additional capacity. This could happen in 2036 as mentioned by Eastlink.
24. Sasktel's comment is also eloquent in that regards. They state that AWS1 and PCS G-block are not well suited for non-urban deployment and that "the requirements as proposed in the Consultation would be quite onerous and unrealistic for those rural based Tier 4 service areas without a major population centre greater than 10,000 people to support the urban spectrum".
25. So basically, one can deduct from the replies that very small communities will never be covered with such "urban centric" spectrum bands, and that, for New Entrants, mid-band spectrum will not be deployed in remote areas until such time New Entrants can also deploy a low band as an overlay, and of course assuming there is

one day a need for capacity which, in some communities, could never be a requirement.

26. In those cases, should we repeat ourselves, such spectrum in those very specific areas should be made available to other carriers that wish to deploy private or rural networks in those locations.
27. Ecotel reiterates that the Department must find a way to give access to this unused spectrum to other carriers that would be willing to deploy in those unserved areas and do not have the spectrum to do so. One way to do this is to implement tier-4 levels and mandate subordination when spectrum is not used in specific areas.

#### REASON 4: INCUMBENTS' AND NEW ENTRANTS' ECONOMICS

28. We believe the real rationale behind delaying the obligation to cover remote areas, as some interveners mentioned, is the economics specific to their business plan. Ecotel understands the economics to support remote regions for the incumbents and the 3 remaining New Entrants can be an issue. However, this is not necessarily an issue for smaller carrier like Ecotel that specifically designed their business plans around those remote areas. This is why we request that measures be taken by the Department to either incentivize or mandate carriers to subordinate or transfer spectrum that is not used in those regions. Implementing tier-4 deployment levels are in our view one first measure in that direction.
29. In Ecotel's views, contrary to what Videotron mentions, what are generally missing are not complex partnerships with local players or access to capital or infrastructure. The main element that is missing is access to unused spectrum. The reality is, everybody has been talking about rural and remote regions for years. Yet, with all the promises, most of those populations are still not covered or at best, underserved. This is just not part of a big carrier's business plan and, as mentioned by Videotron, is certainly very complex for them to find the right profitable arrangements, resources, partnerships, etc. Ecotel knows several municipalities, private enterprises and other entities that would be willing to partner with Ecotel to have access to a private network should Ecotel be able to access unused spectrum in those regions.
30. What is required here is not more time for the carriers to find the right profitable arrangements. There is a possibility this will never happen for them or never fit their business plans. We believe it is time for the Department to implement rules that will allow new players to have access to unused spectrum in specific locations. We believe implementing tier-4 deployment levels is one step in that direction.

31. Of note, as mentioned by Rogers in their reply at paragraph 16, subordination arrangements are sometimes possible. In fact Ecotel was successful in implementing such arrangements with Rogers for specific remote locations in Quebec, Labrador and Nunavut.
32. However, this long process is not business-as-usual type of arrangements, not to say difficult or impossible with certain carriers. Ecotel made several other requests for subordination or transfer to incumbents and new entrants, only to receive denials.
33. We recently made requests to Bell and Wind (now Shaw) to have access through subordination or transfer PCS spectrum in Quebec that we know has never been used in the specific locations we are contemplating. This was refused without justification for Bell and we never received an answer from Wind.
34. We made other requests to other carriers that were also refused or left without answers.
35. Facing the difficulties of having access to spectrum in remote regions that we know remains unused and sometimes has never been put to use and will not be put to use in a foreseeable future, we believe spectrum subordination and spectrum transfer should be incentivized through the right license conditions or even mandated.
36. Contrary to what Rogers mentioned in their reply at paragraph 32, parties interested in serving unserved areas and that would like to access spectrum in order to offer services cannot participate in spectrum auctions with tier-2 and tier-3 licenses since these licenses would extend way outside the specific region they want to cover and current deployment levels would obliged them to cover urban markets that are not part of their business plans and that are already covered by Incumbents and New Entrants. If auctions were based on tier-4 license areas this would certainly be another story for Ecotel.
37. Back in 1998, Industry Canada issued their "Policy for the Provision of Cellular Services by New Parties" (Radio Policy RP-19) with the objective to "extend the provision of cellular services to unserved and underserved areas in a timely and orderly manner, by enabling entities, other than those which previously were or could have been authorized to offer such services, to proffer cellular services".
38. It has been almost 20 years since RP-19 was issued, a time when mobile penetration in Canada was only about 10% and the only spectrum used were 850 cellular and PCS 1900. Mobile penetration has changed since then, still the same issues are topical when it comes to providing coverage to remote areas.

39. We believe such a policy should be revisited in light of our present comments, updated to today's reality and imperatives, and add to it the spectrum bands that were licensed since then with timeframe attached to the process like it was done for Mandatory Roaming and Antenna Tower and Site Sharing in CPC-2-0-17.

#### OTHER TOPICS DISCUSSED IN THE REPLY COMMENTS

40. On mandatory roaming, Ecotel takes note of the comments from some carriers and believe ISED needs to ensure that mandatory roaming is kept either through ISED's or CRTC's regulation, and that the obligation remains. Ecotel being a new comer as a carrier, we will continuously need mandatory roaming in the foreseeable future.

#### CONCLUSION

41. Ecotel reiterates that tier-4 condition plus 5-year deployment levels are achievable for both AWS1 and PCS-G.

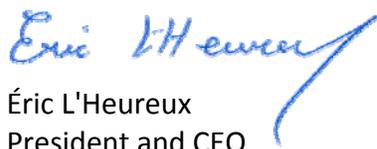
42. To implement tier-3 deployment levels would not be reasonable on the basis that licenses will be renewed for 20 years.

43. Tier-4 deployment levels would allow smaller carriers with different business plans to address smaller markets through subordination or spectrum transfer while helping bigger carriers achieve their deployment conditions.

44. In addition, in order to encourage new parties to access spectrum and offer coverage in remote areas, Ecotel is of the view that spectrum subordination and spectrum transfer should be incentivized or mandated through the proper license conditions and that a new policy similar to RP-19 be revisited in light of our present comments, updated to today's reality and imperatives, and add to it the spectrum bands that were licensed since then with timeframe attached to the process like it was done for Mandatory Roaming and Antenna Tower and Site Sharing in CPC-2-0-17.

45. Ecotel thanks the Department for the opportunity to provide these additional comments.

Yours truly,



Éric L'Heureux  
President and CEO

ECOTEL

877-376-3776

MONTRÉAL - 2570 Letourneux, suite 3, Montréal, QC, H1V2P4

[info@eco-tel.co](mailto:info@eco-tel.co)

[www.eco-tel.co](http://www.eco-tel.co)