



Montreal, September 20th, 2019
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Senior Director
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235 Queen Street
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**RE: Reply Comments - Consultation on a Policy and Licensing Framework for Spectrum in the 3500 MHz Band
(Canada Gazette, Part I, Gazette Notice SLPB-002-19, posted June 5 2019)**

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 regards to the Consultation on a Policy and Licensing Framework for Spectrum in the 3500 MHz Band.
2. After reading comments submitted by the diverse parties in this Consultation, ECOTEL remains of the view that there is a real dichotomy between urban and rural/remote areas realities and that the Department must implement the right conditions so that smaller operators in rural and remote areas can access this important resource that is spectrum.
3. Let's face it. Spectrum auction in the 600 MHz was a failure. Despite the comments received from smaller players, the Department decided to keep license areas definition on the basis of tier-2. As expected, only the biggest "regional" MNOs were in a position to enter the auction and bid on set aside tier-2 licence areas. Add to this the fact that each carrier would only bid for markets where they already are, and you end up not only with spectrum that they obtained for a pittance, representing a true gift from the Canadian tax payers to these big "regional" MNOs, but also with eight set aside licenses representing nearly 50 million MHz-pop left on the table. While smaller operators reiterated through their reply comments they would love to have access to this spectrum with great propagation characteristics and would rapidly put it to use for the Canadian population in rural and remote areas, the Department denied their demands and offered the spectrum at the entry price to the big "regional" MNOs, and they just left it on the table. While big "regional" MNOs'

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message is clear, that they do not need additional spectrum, the eight licenses will remain unused and inaccessible to smaller operators for a long period of time. This is a nonsense.

4. If the Department wants the upcoming 3500 band auction to be a real success, meaning bringing tangible benefits to the Canadian population in the short term, ECOTEL reiterates below important elements that must urgently be considered by the Department.

Pro-Competitive measures (Questions Q1A and Q1B)

5. ECOTEL reiterates that both set-aside and in-band spectrum cap are required to ensure that spectrum will not be concentrated in the hands of a few players, and allow smaller operators to have a fair chance at winning spectrum licenses.

Set-aside eligibility (Question Q1C)

6. ECOTEL continues advocating that an existing operator offering services should have the right to expand its business outside its existing license areas. This is especially true in non-urban markets. Small regional operators can be interested in developing their business in other rural areas of the country that are not necessarily in the same tier-2 areas where they are currently offering services. The only reason today they cannot offer service in those other rural areas is the fact they cannot access spectrum in those rural areas.
7. The current eligibility rule proposed by the Department continues preventing small regional operators to expand and offer their innovative solutions outside their current footprint. As mentioned by Telus in their submission, limiting eligibility “to active Tier 2 service areas (...) is essentially market planning and anticompetitive”. ECOTEL could not agree more with Telus on that point.
8. Clearly, through the submissions from the diverse parties in the present Consultation, the urban vs rural dichotomy is at the forefront of the debate. The big MNOs use the argument that four competitors are enough and that the market cannot sustain a fifth carrier. But one must remember that big MNOs are mainly interested in urban markets. So, their argument might certainly be true for urban markets that such markets with already 4 active providers might not stand a fifth competitors. This is the same reason why large MNOs are also reluctant to have pro-competitive rules that would allow a fifth operators in those areas.
9. However, most if not all smaller operators are not interested in those population centers / urban markets as they know they would not be in a position to compete. So,

there are very little chances that a small operator would only contemplate bidding on metropolitan centres and become the fourth or fifth operator in those markets. However, in the rural and remote areas ECOTEL is contemplating, there is no such thing as four operators competing. And even most of the time, no carriers at all are present. Sometimes only one carrier is present. But certainly not 3 or 4 operators. As a consequence, the maximum four-competitor concept in those regions falls more under science fiction...

10. As a result, in those regions, the spectrum is just not put to use. And when Ecotel tries to access spectrum through subordination, either the demand is refused without justification or no answers are received. It is just not normal that all that spectrum remains unused and nobody else can use it. This is a waste of an important resource that is spectrum.
11. This is a great example here where rules for urban areas would not apply in non-urban areas. By implementing rules that protect the interest of big MNOs in urban areas, the Department must realize that it is often to the detriment of rural and remote areas.
12. ECOTEL reiterates that restricting eligibility to only markets where commercial services are currently offered within a tier-2 must be removed. If the Department judges that this cannot be done in urban areas, then it must at least implement it for rural and remote areas and stop this urban-vs-non-urban dichotomy.

Services areas (Question Q2)

13. In order to stop the urban-vs-non-urban dichotomy as explained in previous paragraphs, ECOTEL also advocates that service areas must separate urban vs non-urban areas.
14. The Department recently created the right tool to separate rural and remote areas from urban areas by defining tier-5 license areas. Such smaller areas are the only way for small regional operators to bid on spectrum they need in these specific areas while leaving population centers to the big MNOs.
15. ECOTEL remains in favor of using tier-5 license areas for the 3500 upcoming auctions and agrees with TekSavvy's view in that regards. In the case the Department does not apply tier-5 license areas, ECOTEL agrees with CANWISP that at minimum deployment level conditions should be at the tier-5 levels within each tier-4 license before the end of the 20-year term. ECOTEL is also in agreement with CANWISP that in conjunction with stricter deployment level conditions, additional requirements for subordination should come with new licenses and that subordination should be mandated when spectrum remains unused. As such, it remains imperative that the Department

ensures that “spectrum put to use” means servicing real customers and not only turn on the frequencies on certain sites. The Department must diligently validate what is implemented in the field, the locations, and the real customers that are serviced.

Deployment conditions (Question Q14)

16. ECOTEL is in agreement with Xplornet that the 3500 spectrum must be allocated to the operators that need it the most. Returning spectrum that was in use and then letting it unused for up to 10 years does not make any sense. All stakeholders in this consultation mentioned the urgent need for this spectrum to be allocated. As a result, deployment levels must be tightened accordingly.

17. Having said this, and as explained below, ECOTEL believes that while tightening the deployment conditions and forcing the big MNOs to extend their coverage in non urban areas is “noble”, it will not solve the issue of better serving the rural and remote areas anytime soon. Letting smaller operators access the spectrum in those regions would certainly better serve the population interests.

18. To that regards, ECOTEL found very interesting that some operators’ arguments against proposed deployment conditions include the fact that 3500 band would be less appropriate for covering remote areas, requires too many sites, etc.

19. ECOTEL highlights below some interesting comments:

20. Bell SLPB-002-19 submission paragraph 94:

“Moreover, 3500 MHz is mid-band spectrum and not suitable for covering large geographic areas like low-band spectrum used for LTE. (...) it is more challenging to build out coverage in rural areas to meet the LTE deployment requirement”

21. Quebecor SLPB-002-19 submission paragraph 9:

“(…) les fournisseurs de services mobiles ont déjà déployé des réseaux LTE en utilisant des fréquences de bande basse, des fréquences qui possèdent des caractéristiques de propagation bien meilleures que celles de la bande de 3 500 MHz.”

22. Rogers SLPB-002-19 submission paragraph 201:

“The 600 MHz, 700 MHz, and 850 MHz spectrum bands should be viewed as providing similar coverage capabilities due to similar propagation characteristics and form the coverage layer of a mobile network. The 3500 MHz band has much closer propagation

characteristics to the PCS, AWS, and BRS spectrum bands, which form the capacity layer for facilities-based mobile networks. Due to differences in population densities between urban and suburban areas and those of rural and remote communities, the coverage layer may provide sufficient capacity on its own while immediately overlaying the entire network with all capacity bands may not be required nor economically feasible.”

23. Iristel SLPB-002-19 submission paragraph 40:

“This LTE service is currently provided exclusively using low band 850 MHz spectrum which has a much greater coverage range and building penetration than 3,500 MHz. Achieving the same level of coverage using 3500 MHz mid-band spectrum may require significant expenditure for equipment and support structures with no possibility of recovering the investment.”

24. Sasktel SLPB-002-19 submission paragraphs 39-40-44:

“It must be emphasized that these rural “in-fill” sites will need to be installed in very sparsely populated areas “in the middle of nowhere”. There will likely be no infrastructure in the area, requiring the installation not only of towers, but also buildings, access roads, power lines, and fibre facilities. The typical rural cell site is far more expensive to build than a new urban cell site.”

“These rural residents are being well served by low band 850 MHz LTE and can be well served with 5G using 600 MHz spectrum.”

“Low band spectrum bands such as 600 MHz, 700 MHz, or 850 MHz are far more suitable to serve rural areas”

25. Shaw SLPB-002-19 submission paragraph 100:

“This requirement will result in 3.5 GHz network infrastructure being deployed in areas where it is simply not required, including low-density areas already being adequately served by existing LTE bands”

26. One can certainly appreciate their argumentation to demonstrate 3500 is not a good spectrum to cover in non-dense areas. But clearly, several months before the auctions, some operators are already explaining to the Department why the 3500 band will not be used outside existing urban markets in any foreseeable future and why they prefer using the low band spectrum for that. The Department must imperatively find a solution to this and, instead of forcing large MNOs that will spend

all their time arguing the conditions are unfair and finding reasons not to cover rural areas, the Department must just let the spectrum be accessed by operators that want to offer service to the population in rural and remote areas. The only way to do that for the upcoming auction is to use tier-5 areas at least for non-urban areas.

27. Let's be clear, ECOTEL understands the challenges of reaching deployment conditions and the point of view of bigger MNOs. That these MNOs elect not to cover certain areas is their business call. ECOTEL has nothing against the fact that covering those regions is not part of those big MNOs' business plans. But ECOTEL is against the fact that, while big MNOs do not want to cover those regions, nobody else can because the spectrum is not accessible.
28. Smaller operators have the business plans and the willingness to offer services and use the spectrum in those areas. Instead of finding ways to force the big MNOs that simply do not have business plans to cover non-urban areas, what ECOTEL is asking is that unused spectrum can be allocated or re-assigned to entities that have the desire to cover where other operators do not want. If the 3500 band is best suited for capacity instead of coverage according to big MNOs, those operators will never deploy the 3500 band in rural and remote areas. That would be against their business call.
29. ECOTEL even noticed Sasktel's proposal to create deployment conditions based on the use of "any spectrum band" instead of band specific. ECOTEL disagrees with Sasktel's proposal. This would only lead to more spectrum remaining unused as an operator would only have to select the spectrum of its choice to cover instead of deploying all the bands acquired through auction. But this is another clear proof big MNOs give to the Department that most of their spectrum shall not be used in rural and remote regions, that if they could, they would never use it outside urban areas.
30. Again here, what those operators are saying to the Department is that because license areas were large at past auctions (i.e. based on tier-2 areas), they acquired by default spectrum covering large area they did not intend to cover. Now the Department is trying to force them and they spend all their energy explaining to the Department why it does not make sense for them.
31. ECOTEL has no problem if an operator does not need the spectrum, ECOTEL only wants to access it. Operators could transfer or subordinate parts of their license areas they do not want to cover but they do not. Why? Because there is no incentive nor revenue to do so. Not having to subordinate is an extremely efficient barrier of entry against any other operator interested in those markets. So, the big MNOs do not cover and want to ensure they will not have to cover, and that nobody else will enter the market. At the end, the spectrum is wasted and the Canadian population will never benefit from this resource.

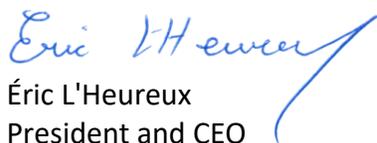
32. Instead of forcing larger MNOs to deploy where they do not want because there is just no business plan for them, why not finding once and for all a solution for smaller operators that are interested in such unused spectrum in those areas that will not be covered otherwise? While large MNOs would prefer keeping this spectrum unused, which represents a barrier to entry, ECOTEL would prefer efficient spectrum allocation, better service for rural and remote areas, more choices for consumers and innovation.
33. ECOTEL found very interesting Cogeco's analysis of sites deployed in each license area as part of their reply in the Consultation on the Spectrum License Renewal Process for Non-Auctioned Broadband Radio Service (BRS) Licenses (DGSO-002-19). It clearly showed that even if the Department was going to consider Tier-3 deployment levels are reached based on these deployments, the large proportion of smaller license areas are not covered at all, and will never be. This has become a real issue and the Department cannot deny this fact. Big MNOs are targeting the main population centers only and leave rural areas non-covered. Current deployment conditions only amplify the urban-vs-non-urban dichotomy.
34. As a result of all this, ECOTEL could not agree more with BCBA that "National carriers, including Canada's new wireless carriers, have demonstrated that urban investment is their priority". Through their comments in this Consultation, the big MNOs reiterated ad nauseam they wanted to use the 3500 band only in urban areas. As a consequence, including rural areas in their licenses would only be wasted resources. They specifically said to the Department they have no plans to use 3500 outside of population centers. If ISED's objective is "...efficient use of spectrum..", then ISED must find a way to allocate spectrum during the auction in such a way that this important resource is not wasted.
35. So, the question is: how will the Department make this 3500 spectrum available to other carriers whose business plans include rural and remote areas? The only way to achieve this is by separating urban areas and rural/remote areas licenses with tier-5 license areas and let smaller operators bid on those smaller license areas.

License conditions (Question Q15)

36. ECOTEL agrees with CANWISP that in conjunction with stricter deployment level conditions, additional requirements for subordination should come with new licenses and that subordination should be mandated when spectrum remains unused. As such, it remains imperative that the Department ensures that "spectrum put to use" means servicing real customers and not only turn on the frequencies on certain sites. The Department must diligently validate what is implemented in the field, the locations, and the real customers that are serviced.

37. In sum, with this upcoming auction in the band 3500, the Department has the chance to send a clear message that the spectrum in rural and remote areas must be rapidly put to use to serve the population. However, the Department must accept the difference in serving metropolitan centres / urban areas versus rural and remote areas, and must define the conditions in consequence to ensure rural and remote areas will be covered, not by forcing large national MNOs (NMSP) and large regional MNOs (RMSP), but by allowing the smaller players that have the will and the business cases to offer services in those areas having access to the spectrum specifically in those areas. As a consequence, ECOTEL would be ready to see pro-competitive measures and other conditions being imposed differently between metropolitan centres / urban license areas versus rural / remote region license areas if this can help smaller operators having access to the spectrum in their region of interest. This is also the reason why ECOTEL believes tier-5 license areas would help more achieve this differentiation than tier-4 license areas.
38. The other important element to consider is the fact that both NMSP and RMSP have indicated the 3500 band was not suited for them to cover areas other than urban. Should they have an interest to cover any rural or remote areas in the future, they would use their other spectrum assets for that as they explained in details to the Department. The large operators have clearly indicated to the Department they have no interest in the 3500 spectrum outside the population centers. Their message is clear. The time has come for the Department to define rules so that smaller operators will access the spectrum in rural and remote areas and put it to use. By differentiating between metropolitan centres / urban areas and rural / remote areas, we all end up with a win-win-win solution for the large MNOs, the smaller operators and for the Department. Everybody wins.
39. The FCC has already announced its intention to auction the 3500 CBRS band in June 2020. In addition, it is expected that the General Authorized Access (GAA) unlicensed portion of the band will start hosting commercial services sometimes in September or October this year. US enterprises and operators will take an early edge in deploying 5G technologies using the 3500 band. The Department must act rapidly and also make the 3500 band (3450-3650) available to smaller operators to improve competitiveness in Canada.
40. ECOTEL thanks the Department for the opportunity to provide these reply comments.

Yours truly,


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