

Canada Gazette Notice SLPB-005-17

Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band

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Comments of
The logo for tbaytel, featuring the lowercase letters 'tbaytel' in a blue, sans-serif font.

October 2, 2017



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EXECUTIVE SUMMARY

1. Tbaytel is pleased to offer the following comments in response to Canada Gazette Notice SLPB-005-17, Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band.
2. Tbaytel is a small regional wireless carrier providing advanced wireless services, serving an area from just west of Sault Ste Marie on our easterly boundary, to the Manitoba border in the West and from Red Lake in the North to the US border, from its head office in Thunder Bay Ontario. Physically, this is an extremely large area to serve and constitutes a high cost serving area that is mostly rural in nature.
3. Tbaytel supports the Government's mandate to promote competition and deliver broadband and wireless services to rural and remote areas of Canada. Offering some of the most competitive rate plans in the country – often at price points 40 percent less of the national carrier standard pricing in other major markets – Tbaytel is a viable alternative carrier option for customers in Northern Ontario. It is Tbaytel's position that strong regional providers are the "fourth national carrier" that the Government was looking to create.
4. Tbaytel agrees with ISED ("the Department") on "the view that the ability to bid on the proposed set-aside spectrum should be limited to a particular sub-set of regional service providers that are best positioned to compete in the commercial mobile services market"¹
5. The Competition Bureau found that regional carriers make the difference when it comes to competitive pricing. The Bureau found that "analysis showed that mobile wireless pricing in Saskatchewan, Thunder Bay, Quebec and Manitoba is substantially lower than in the rest of Canada"²
6. In addition, Tbaytel owns 12 % of the active spectrum holdings available in Northern Ontario market yet services 89% of the subscribers in its territory. Currently, Eastlink owns 14 % and Freedom holds 4% spectrum in Northwestern Ontario, and serves 0 % of the subscribers in that region.

¹ Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band, section 29

² Competition Bureau statement regarding Bell's acquisition of MTS (2017). Retrieved from <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04200.html>



7. Tbaytel has actively participated in each available auction to secure spectrum to service its subscriber base but has only acquired BRS spectrum from the AWS-1, 700, AWS-3 and BRS auctions.
8. In his paper Spectrum Auction Design, Dr. Cramton notes that “The government should focus on ensuring that those who can put the spectrum to its highest use get it.”³ In every auction, Tbaytel has bid against, and lost to, carriers that, as of this submission, have not launched service in Tbaytel’s serving territory, Northwestern Ontario.
9. Regardless of auction outcome, Tbaytel has repeatedly demonstrated a commitment to serve Northwestern Ontario by deploying spectrum whether owned or subordinated from other carriers.
10. The need to subordinate spectrum from other carriers presents a significant business risk and operating cost for Tbaytel.
11. Tbaytel has exemplified the Government’s policy objective to maximize the economic and social benefits that Canadians derive from the use of the radio frequency spectrum resource.
12. Tbaytel has built an independent wireless network over the course of 30 years covering close to 240,000 square kilometres or an area close to the size of Great Britain in which Tbaytel serves a regional population of 225,000 people facing a unique set of geographical challenges.
13. Tbaytel will continue to bid in one of the more competitive auction markets in the country but many auction rules are an impediment to spectrum acquisition. Rules including but not limited to licence area, opening bids and deployment requirements make it difficult for small regional carriers to compete.
14. Tbaytel finds that the size of licence area 2-09 conflates two natural market boundaries; Northwestern Ontario and Northeastern Ontario. The result is bidders with different target markets bidding on the same spectrum product.

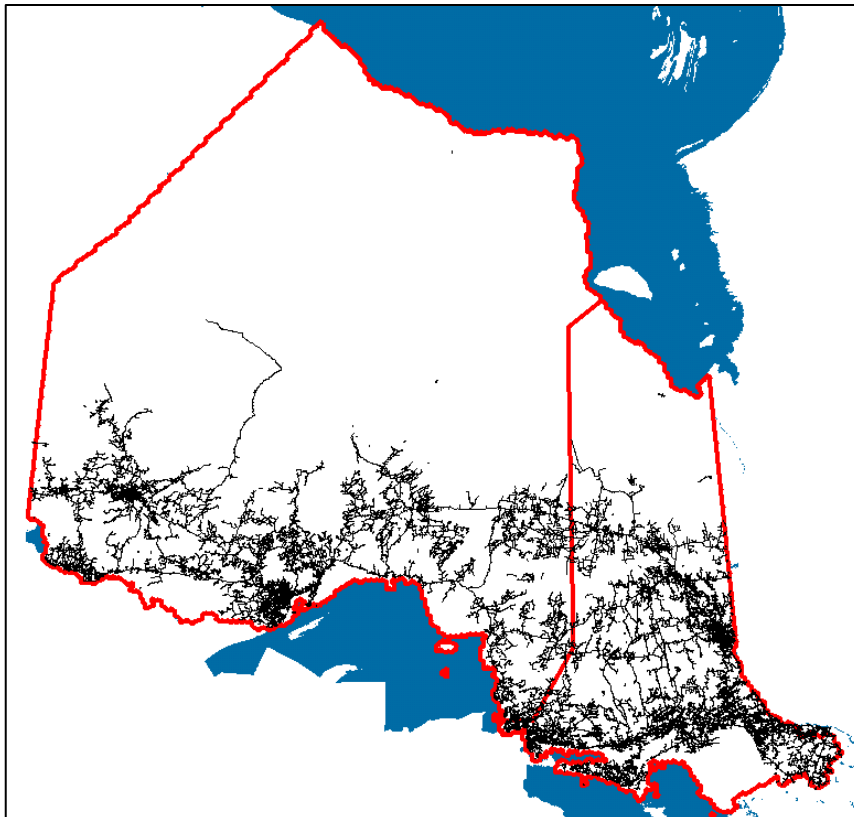
³ Cramton, P. (2013). Spectrum Auction Design. *Review of Industrial Organization*.



15. The size of licence area 2-09 compounds the problem of deployment targets. The 5 year target of 25% equates to covering 194,612 people. This would require Tbaytel to overlay the entire Tbaytel serving territory in 5 years. This is not feasible.
16. Without the ownership of spectrum, Tbaytel will be limited in its ability to provide high quality wireless services to the consumers spread across the vast area of Northwestern Ontario.
17. Accordingly, Tbaytel is requesting the Department to separate Tier 2-09 Service Area Northern Ontario into more reasonable areas so that a small regional carrier like Tbaytel can continue to provide state-of-the-art wireless services.

INTRODUCTION

18. Tbaytel has in past consultations indicated its challenges in serving its customers in Tier 2-09, Service Area Northern Ontario. This vast size, terrain, sparse population and isolated communities results in Northwestern Ontario being a difficult and high cost operating environment.
19. To sustain our ability to provide high quality service to consumers in Northwestern Ontario through the successful acquisition of new spectrum, Tbaytel is requesting that the Department divide licence area 2-09 into smaller natural market boundaries.
20. Population density varies greatly between eastern and western portions of tier 2-09. Tbaytel predominantly services the lower density western market representing roughly 2/3 of the land area and 1/3 of the tier's population. This makes the acquisition of spectrum based on the tier 2-09 licence area cost prohibitive.
21. Tbaytel has in past consultations advocated a plan to split the large Tier 2-09 Service Area Northern Ontario in more workable areas to ISED. By separating the tier into two areas, vertically splitting the tier into a west and east half, this would align to the existing natural market boundaries. This approach would promote the efficient acquisition of spectrum supporting the delivery high quality wireless service to the consumer.



22. The western division would take place just west of the city of Sault Ste Marie and then stretch north to James Bay roughly along the 83rd meridian as its easterly boundary. The westerly boundary would continue to be the Manitoba border.
23. The easterly division would be the area starting from just west of Sault Ste Marie while including Sault Ste Marie and stretching north to James Bay roughly along the 83rd meridian. The easterly boundary of this east area would continue to be the easterly boundary of the existing Tier 2-09 Service Area Northern Ontario.
24. Accordingly, this would approx. separate the tier population wise for the West at 242,727 and for the East at 532,048. Also the area would be separated into a West with 685,900 sq km and an East with 205,713 sq km.
25. Currently, spectrum goes unused because market boundaries and spectrum boundaries do not align. Since it is important to ensure the best utilization of spectrum, Tbaytel recommends licence boundaries that align with regional carriers.



26. Competing in the auction against other carriers that intend on serving Northeastern Ontario, and not Northwestern Ontario, has inflated spectrum prices. Acquiring spectrum at prices more in line with the economic opportunities of the region will help drive competition.
27. Splitting the tier will also lower the burden of deployment targets. The size of licence area 2-09 compounds the problem of deployment targets. The 5 year target of 25% equates to covering 194,612 people. This would require Tbaytel to overlay the entire Tbaytel serving territory in 5 years.

Tbaytel Responses to Consultation Questions

6. Pro-competitive measures

Q1A—ISED is seeking comments on its proposal to implement a set-aside as a pro-competitive measure in the auction process for the 600 MHz band.

Q1B—ISED is seeking comments on its proposal to set aside 30 MHz of spectrum in the 600 MHz band for eligible entities and to have open bidding (no pro-competitive measures) on the remaining 40 MHz in the band.

Q1C—ISED is seeking comments on its proposal to limit the eligibility criteria to bid on set-aside spectrum to those registered with the CRTC as facilities-based-providers that are not national incumbent service providers, and that are actively providing commercial telecommunication services to the general public in the licence area of interest, effective as of the date of application to participate in the 600 MHz auction.

Q1D—ISED is seeking comments on its proposal to limit the transferability of the set-aside spectrum for the first five years of the licence term.

Q1E—ISED is seeking comments on its proposal to auction the set-aside spectrum as three separate paired blocks of 5+5 MHz.

Tbaytel's Comment

28. Tbaytel believes that the entity able to most efficiently deploy spectrum to the consumer are those defined in the AWS-3 pro-competitive measures. This measure has



the added benefit of deterring speculation. As such, qualified bidders would be required to be operating a terrestrial wireless network in the Tier 2 service area.

29. Alternatively, Tbaytel would accept that to be able to bid on the set-asides carriers must be a facilities –based providers which is registered with the CRTC that are not national incumbent service providers and that are actively providing commercial telecommunications services to the general public in the licence area of interest, effective as of the date of their application to participate in the 600 MHz auction.
30. Tbaytel believes that 30 MHz is reasonable for the set-aside for eligible entities made up of 3 paired blocks of 5 +5 MHz and to have the remaining opening bids on the remaining 40 MHz (no pro-competitive measures) which is also made up of 4 paired blocks of 5+5 MHz.
31. With respect to the added criteria that the set-aside spectrum not be able to be transferrable within a 5 year timeframe is appropriate for Tbaytel.
32. Tbaytel is in agreement that the set-asides be three separate paired blocks of 5+5 MHz.

7. Licence areas

Q2—ISED is seeking comments on its proposal to use Tier 2 service areas across the country, except in the three Territories (Yukon, Northwest Territories and Nunavut) where Tier 4 service areas would apply.

Tbaytel’s Comment

33. Tbaytel, as a small regional carrier, believes that the Tier 2-09 Service Area Northern Ontario should be divided into smaller sections for efficiency and consumer service. Tbaytel has in past auctions championed for dividing up such an expansive and sparsely populated Tier 2-09 Service Area Northern Ontario and currently believes this is still true today.
34. The Department has stated that it has recognized the challenges for regional service providers in the North and the need to unbundle the Northern Tier 2. Tbaytel believes that there is a similar case to be made for Northern Ontario where smaller boundaries would still be sufficiently large to avoid coordination issues.

35. Tier 2-09 causes carriers to directly compete in the auction that do not compete in the market because of natural (shown below) boundaries. This has the effect of distorting the price discovery process.

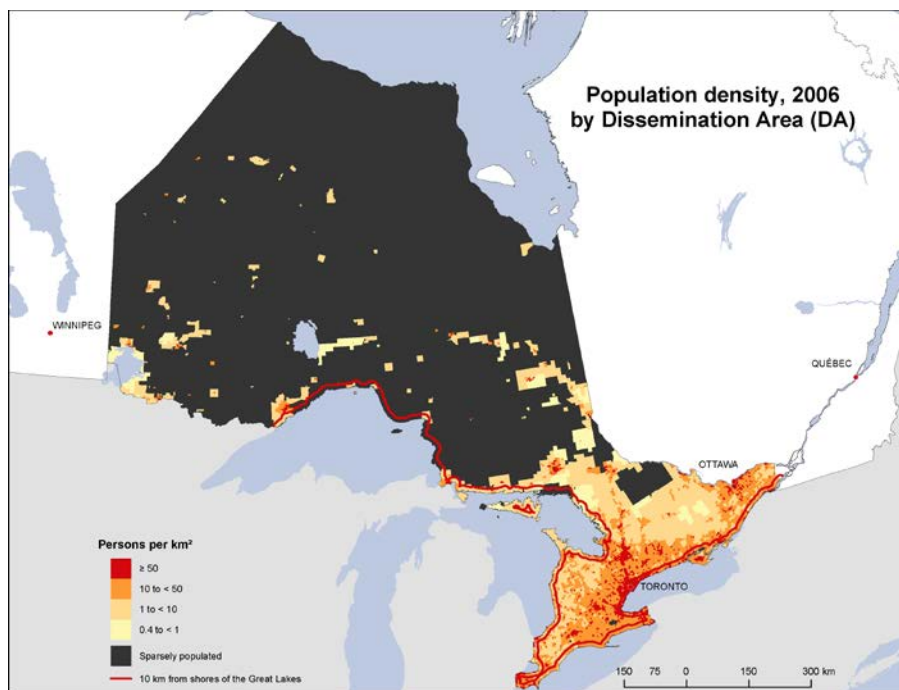


Figure 1: <http://listofmaps.com/population-density-map-of-canada-2010/>

36. As discussed in Tbaytel’s Introduction, Tbaytel advocates for dividing the tier 2. Accordingly Tbaytel feels that this is a viable option that can be incorporated into the 600 MHz Auction and is forward looking in concept.

9.2.2 Generic licences

Q3—ISED is seeking comments on:

- the proposal to use generic licences and;
- the proposal to categorize all blocks won by set-aside-eligible bidders as set-aside blocks.

Tbaytel's Comment

37. Tbaytel believes that the proposal to use generic licences are appropriate since these licences are blocks of spectrum that are sufficiently similar and comparable in value to one another that they can be offered as a single category in each service area. Further, this will simplify the bidding process by enabling bidders to indicate quantities of licences instead of identifying specific licences, reducing the number of products available to bid on, and also reducing the number of possible combinations that bidders have to consider in placing bids making the bidding process easier.

38. With respect to the proposal to categorize all blocks won by set-aside-eligible bidders as set-aside blocks, Tbaytel agrees.

9.2.3 Anonymous bidding

Q4—ISED is seeking comments on:

- a. the use anonymous bidding during the auction; and
- b. the information that will be disclosed to bidders during the clock rounds, as described in [annex A](#) (which would also apply to the CCA with a modified activity rule set out in [annex B](#)) and [annex C](#).

Tbaytel's Comment

39. Tbaytel agrees with the use of anonymous bidding during the auction.

40. Also, the information that will be disclosed to bidders during the clock rounds as noted in the question is adequate.

9.3 Structure and benefits of auction format options

Q5—ISED is seeking comments on:

- a. The advantages and disadvantages of the three auction formats being considered for the 600 MHz auction:
 - i. Combinatorial clock auction, using the WARP-based activity rule ([annex A](#));



- ii. Combinatorial clock auction, using the GARP-based activity rule ([annex B](#));
 - iii. Enhanced combinatorial clock auction ([annex C](#)).
- b. Where there is a preference for one of the options, respondents are asked to provide a rationale and explanation.

Tbaytel’s Comment

- 41. Tbaytel is in supports the use of the ECCA format as it encourages truthful bidding, reduces spiteful bidding and reduces uncertainty.
- 42. According to Kroemer, Bichler and Goetzendorff (2015), an analysis of the Canadian 700MHz auction under the current CCA format shows “the numbers suggest that bidders deviated substantially from straight forward bidding.”⁴
- 43. Uncertainty has been an issue in preceding auctions given the complexity of the second price rule. Reducing this uncertainty will encourage bidders to put forth their true valuation of the spectrum.
- 44. Although GARP is not without challenges, Tbaytel believes that the ECCA format will result in the most efficient and straightforward auction.

9.4 Structure of the assignment stage

Q6—ISED is seeking comments on:

- a. The proposal that winners of more than one block in a single service area be assigned contiguous blocks; and
- b. The proposed structure of the assignment stage, including the order of the assignment rounds and the combination of service areas into a single assignment round.

⁴ Kroemer, Christian and Bichler, Martin and Goetzendorff, Andor, (Un)Expected Bidder Behavior in Spectrum Auctions: About Inconsistent Bidding and Its Impact on Efficiency in the Combinatorial Clock Auction (January 24, 2015). Available at SSRN: <https://ssrn.com/abstract=2533878> or <http://dx.doi.org/10.2139/ssrn.2533878>

Tbaytel's Comment

45. Tbaytel believes that winners of more than one block in a single service area be assigned contiguous blocks.
46. The proposed structure of the assignment stage, including the order of the assignment rounds and the combination of service areas into a single assignment round is acceptable.

9.5 Increasing prices in the clock rounds

Q7—ISED is seeking comments on the proposed methodology for incrementing prices during the clock rounds, as described in [annex A](#).

Tbaytel's Comment

47. Tbaytel concurs with the Departments approach.

10. Bidder participation—Affiliated and associated entities

6. Proposed definition of affiliated entities: It is proposed that the definition of affiliated entities remain as it was for previous auctions, as follows:

Any entity will be deemed to be affiliated with a bidder if it controls the bidder, is controlled by the bidder, or is controlled by any other entity that controls the bidder. "Control" means the ongoing power or ability, whether exercised or not, to determine or decide the strategic decision-making activities of an entity, or to manage or run its day-to-day operations.

Proposed definition of associated entities: As a basis for participating in the 600 MHz auction, ISED proposes that associated entities be defined as follows:

Any entities that enter into any partnerships, joint ventures, agreements to merge, consortia or any arrangements, agreements or understandings of any kind, either explicit or implicit, relating to the acquisition or use of any spectrum in the 600 MHz band will be treated as associated entities. Typical roaming and tower sharing agreements would not cause entities to be deemed associated.



Q8—ISED is seeking comments on the proposed Affiliated and Associated Entities rules that would apply to bidders in the 600 MHz auction.

Tbaytel's Comment

48. As Tbaytel agrees with both the ISED definitions of Affiliated and Associated Entities, Tbaytel is in agreement that only one member of an affiliate relationship is permitted to become a qualified bidder in the auction or the affiliated entity may apply as a single bidder. Also, Tbaytel agrees that associated entities may participate separately in the 600 MHz auction and that allowing associated entities that are competitors in the market to bid separately would not have an adverse impact on the integrity of the auction provided the auction participants comply with the information disclosure and anti-collusion rules as proposed.

10.4 Prohibition of collusion and other communication rules

Given that ISED is proposing to allow the participation of some associated entities as separate bidders in this auction process, the proposed prohibition of collusion rules are as follows:

All applicants, including affiliated and associated entities, are prohibited from cooperating, collaborating, discussing or negotiating agreements with competitors, relating to the licences being auctioned or relating to the post-auction market structure, including frequency selection, bidding strategy and post-auction market strategy, until after the public announcement of provisional licence winners by ISED.

Prospective bidders will note that the auction application forms contain a declaration that the applicant will be required to sign certifying that the applicant has not entered into and will not enter into any agreements or arrangements of any kind with any competitor regarding the amount to be bid, bidding strategies or the particular licence(s) on which the applicant or competitors will or will not bid. For the purposes of this certification, "competitor" means any entity, other than the applicant or its affiliates, which could potentially be a bidder in this auction based on its qualifications, abilities or experience.

Prospective bidders should note that the definition of "affiliate" for the purposes of this licensing process (defined by reference to "control in fact") differs from "affiliate" for the purposes of the [Competition Act](#). The provisions of the *Competition Act* apply independently of, and in addition to, the policies contained in this framework.

10.4.3 Other communication rules

113. **Discussions on tower sharing:** The prohibition of communication includes discussions about tower and site sharing regarding the licences that are the subject of this auction until after the public announcement of provisional licence winners by ISED. Discussions concerning new arrangements or the expansion of existing sharing arrangements that relate to spectrum outside of licences being offered in this auction process are not prohibited.

114. **Communication with local exchange carriers:** The prohibition of communication includes discussions regarding interconnection services with a local exchange carrier (LEC) that is a qualified bidder (or one of its affiliates/associates) in this auction, where the services relate to spectrum in the bands offered in this auction process.

115. **Consulting services, legal and regulatory advice:** Separate bidders may not receive consulting advice from the same auction consulting company. Separate bidders may receive legal and regulatory advice from the same law firm provided that the law firm complies with the conflict of interest and confidential information requirements of the applicable law society and that the applicants otherwise comply with the provisions set forth in the licensing framework.

Q9—ISED is seeking comments on the proposed rules prohibiting collusion and other communication rules, which would apply to bidders in the upcoming 600 MHz auction.

Tbaytel's Comment

49. Tbaytel agrees with the ISED proposed rules prohibiting collusion and other communication rules which would apply to bidders in the upcoming 600 MHz auction.

11.1 Licence term

121. In light of the above, ISED is proposing that auctioned spectrum licences in the 600 MHz band have a licence term of 20 years. The proposed condition of licence is as follows:

The term of this licence is 20 years. At the end of this term, the licensee will have a high expectation that a new licence will be issued for a subsequent term through a renewal process unless a breach of licence condition has occurred, a fundamental reallocation of spectrum to a new service is required, or an overriding policy need arises.



The process for issuing licences after this term and any issues relating to renewal, including the terms and conditions of the new licence, will be determined by the Minister following a public consultation.

Q10—ISED is seeking comments on its proposal to issue spectrum licences in the 600 MHz band with a 20-year licence term and the proposed wording of the condition of licence above.

Tbaytel's Comment

50. Tbaytel believes that a 20 year licence term as proposed as a condition of licence is appropriate. Following this 20 year term, there should also be a high expectation that the specific licence will be renewed.

11.2 Licence transferability and divisibility

131. ISED is proposing the following wording for the condition of licence on transferability and divisibility:

This licence is transferable in whole or in part (divisibility), in both bandwidth and geographic dimensions, subject to ISED's approval. A Subordinate Licence may also be issued in regard to this licence. ISED's approval is required for each proposed Subordinate Licence.

For the first five years of the licence term from the original date of issuance, a set-aside licence obtained by an entity eligible for set-aside spectrum during the licensing process (i.e. auction) is not transferable to a set-aside-ineligible entity. At all times during the licence term, a licence obtained by an entity eligible for set-aside spectrum during the licensing process is transferable to another entity that was eligible for set-aside spectrum, subject to ISED's approval.

The licensee must make the Transfer Request in writing to ISED. The Transfer Request will be treated as set out in Client Procedures Circular CPC-2-1-23, [Licensing Procedure for Spectrum Licences for Terrestrial Services](#), as amended from time to time.

The licensee must apply in writing to ISED for approval prior to implementing any Deemed Transfer, which will be treated as set out in CPC-2-1-23. The implementation of a Deemed Transfer without the prior approval of ISED will be considered a breach of this condition of licence.

Should the licensee enter into any Agreement that provides for a Prospective Transfer with another holder of a Licence for commercial mobile spectrum (including any Affiliate, agent or representative of the other licence holder), it must apply in writing to ISED for review of the Prospective Transfer within 15 days of entering into the Agreement, which will be treated as set out in CPC-2-1-23. Should ISED issue a decision indicating that the Prospective Transfer is not approved; it will be a breach of this condition of licence for a licensee to remain in an Agreement that provides for the Prospective Transfer for a period of more than 90 days from the date of the decision.

In all cases, the licensee must follow the procedures as outlined in CPC-2-1-23.

All capitalized terms have the meaning ascribed to them in CPC-2-1-23.

Q11—ISED is seeking comments on the proposals on the condition of licence related to transferability and divisibility, and the proposed wording above.

Tbaytel's Comment

51. Tbaytel is of the opinion that on the proposals on the condition of licence related to transferability and divisibility that for set-asides a moratorium on transfer ability to a non-set-aside be in place for 5 years. However, a set-aside may transfer spectrum to another eligible set-aside carrier any time during the licence term. Further, during the licence term, the licence is transferable in whole or in part following the ISED's transferability/ divisibility rules along with its proposed wording.

11.3 Deployment requirements

137. ISED proposes the following wording for this condition of licence:

Licensees will be required to demonstrate to the Minister that this spectrum has been put to use to provide services, as specified in [table F1](#) within 5 years of the initial issuance of the licence, as specified in [table F2](#) within 10 years of the initial issuance of the licence, and as specified in [table F3](#) within 20 years of the initial issuance of the licence.

Where a licence is transferred, the requirement for the new licensee to deploy will continue to be based on the initial licence issuance date.



Q12—ISED is seeking comments on the proposed deployment condition of licence as stated above.

Tbaytel's Comment

52. Tbaytel notes that the currently proposed 5 year deployment target of 25% for area 2-09 equates to covering 194,612 people. This would require Tbaytel to overlay the entire Tbaytel operating territory as a result of expanse and low density of service area 2-09. This is not feasible.

53. Tbaytel does not object with ISED's proposed deployment condition of licence for 10 and 20 years and where a licence is transferred, the requirement for the new licensee to deploy will continue to be based on the initial licence issuance date.

11.4 Other conditions of licence

Q13—ISED is seeking comments on proposed conditions of licence outlined in annex G that would apply to licences issued through the proposed auction process for spectrum in the 600 MHz band.

Tbaytel's Comment

54. As the Conditions of Licence ("COL") licence in Annex G are the standard COL's, which Tbaytel has been following for years, Tbaytel feels they are reasonable.

12.2 Opening bids

Q14—ISED is seeking comments on the proposed opening bids as presented in [table 1](#).

147. Proposed opening bid prices are as follows:

- Group 1: \$0.804/MHz/pop in Southern Ontario and Southern Quebec
- Group 2: \$0.539/MHz/pop in Eastern Ontario and Outaouais, Alberta, and British Columbia



- Group 3: \$0.36/MHz/pop in Newfoundland and Labrador, Nova Scotia and Prince Edward Island, New Brunswick, Eastern Quebec, Northern Quebec, Northern Ontario, Manitoba, and Saskatchewan
- Group 4: \$0.133/MHz/pop in Yukon, Nunavut and Northwest Territories

148. For each service area, the proposed opening bids were determined by multiplying the proposed prices in \$/MHz/pop as outlined above by the population of the service area as shown in table 1 below. The population data is based on Statistics Canada's 2016 Census.

149. Bids at or above the proposed opening bid prices will ensure that Canadians obtain a fair return for the use of this spectrum and that, at the very least, will be comparable to the minimum value established in the 700 MHz auction. The total amount of the proposed opening bids for all seven spectrum blocks nationwide is \$1.537 billion.

150. The total amount of opening bids for one block of 10 MHz nationwide would be \$219.5 million.

Tbaytel's Comment

55. Tbaytel as a small regional carrier servicing a portion of Tier 2-09 Service Area Northern Ontario believes that the opening bid for Tier 2-09 is too high. Even though \$0.36 MHz/population is the second lowest rate, this is a significant increase from the other auctions (AWS-3, 700 MHz, AWS-1, BRS).

56. Further, as Tbaytel has mentioned in its Introduction section, the size of Tier 2-09 Northern Ontario is too large and should be divided for both carrier and subscriber efficiencies. Saying the forgoing Tbaytel believes the strategy proposed in the introduction will make the upfront cost of the initial bid more reasonable.

14. Licence renewal process

Q16—ISED is seeking comments on the proposed renewal process for spectrum licences in the 600 MHz band.

Tbaytel's Comment

57. Tbaytel believes that if it is a successful bid winner and licence owner and follows the deployment numbers and COL, there should be a very high expectation that its licence will be renewed after the 20 year term.