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1. Introduction

This document is Tbaytel's response to Industry Canada, Spectrum Management and Telecommunications, *Consultation on a Policy and Technical framework for the 700 MHz band and Aspects Related to Commercial Mobile Spectrum*, SMSE-018-10, November 30, 2010. Tbaytel will comment to policy and technical framework sections of the consultation as they relate to Tbaytel as a regional/small wireless carrier.

Tbaytel believes that radio frequency spectrum is a finite entity which provides access for all Canadians to a range of private, commercial, consumer and public safety applications to just name a few. Accordingly, this resource has to be effectively administered by the Government of Canada through Industry Canada for the benefit of all Canadians.

Effective management is essential for the future growth of communications in Canada. From the broad applications that the spectrum supports, Canadians expect these services to be first; available, second; free from interference and third: properly managed.

With the hectic pace of technological change and associated growth of wireless technology and services, increased pressures will be put on the availability of finite radio spectrum. To that end, managing spectrum is becoming more complex driven by continuous improvements in technology that foster competitive markets which are spectrum dependent.

2. Background

Tbaytel in the mid 1980's received a cellular licence for the TEL-24 area.

In 2001, Tbaytel participated in the PCS auction and successfully obtained a 2 GHz spectrum licence for Northern Ontario, Tier-2, Serving Area 2-09 for $600,000.

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In the fall of 2006, Tbaytel purchased the assets and spectrum of Superior Wireless, previously a new entrant in parts of Northern Ontario.

In 2008, Tbaytel participated in the 2GHz AWS auction but was unsuccessful and similarly pulled-out.

In 2010, Tbaytel reached a strategic business relationship agreement with Rogers Wireless to take over all Rogers customers in the 807 NPA area by becoming a subordinate licensee of Rogers in Northern Ontario.

3. Summary

On the topic of the **700 MHz Band Plan and Considerations; Guardband**s, Tbaytel supports Option 1; Harmonize with the U.S. band plan.

In **Options for Use of 758-768 MHz Paired with 788-798 MHz for Public Safety and/or Commercial Systems,** Tbaytel believes that spectrum for public safety in Canada must at a minimum harmonize with the current broadband allocation in the U.S. band plan.

With respect to the **Changes to the Canadian Table of Frequency Allocations**, Tbaytel agrees with the proposed changes.

Tbaytel supports **Spectrum Set-asides** as another mechanism to promote further competition and recommends the use of already existing provincial "Districts" as a tier size for 700 MHz Spectrum Auction in Northern Ontario.

Tbaytel as a regional carrier suggests in **Promoting Service Deployment in Rural Areas** that for a predominately rural serving territory, besides spectrum set-asides, other criteria

such as providing service to 50% of the population as well as covering 50% of the highways during the term of the licence should be used.

4. Tbaytel's Submission

Tbaytel will only be offering responses to specific questions that are pertinent to it as a small carrier with a regional geographic presence. A new or smaller carrier is stated in the Telecom Policy Review Panel as being those with less than 10% of market share[1].

5. 700MHz Band Plan and Considerations

Guardbands

5-1 Based on the criteria listed above, which of the four band plan options should be adopted in Canada? Why is this option preferred over the other options? If Option 3 (APT band plan) is selected, what should the block sizes be?

5-2 The band plans presented in the options above include guardbands. Should the Department auction the guardbands, or should these frequencies be held in reserve for future use such that they are technically compatible with services in the adjacent bands?

Tbaytel believes that Option 1; Harmonize with the U.S. band plan is the plan that should be adopted by Canada. For a variety of reasons like efficiencies of spectrum and telecommunications equipment use including handsets, Canada needs to be aligned with the U.S. Also with harmonization with the U.S., cross border travel will alleviate hand over problems for consumers.

[1] TPRP, Final Report 2006, page 11-26

Tbaytel further believes guardbands are necessary as they would align themselves with the FCC in the U.S. and provide interference isolation between public/private shared public safety/commercial broadband networks and the commercial Block C.

5.2 Options for use of 758-768 MHz Paired with 788-798 MHz for Public Safety and/or Commercial Systems

5-3 Do public safety agencies need spectrum for broadband applications? If so:
(a) How much and for which type of applications?
(b) What are the anticipated deployment plans and the possible constraints, if any, in implementing these plans?
(c) Is there suitable alternate spectrum to the 700 MHz to meet these broadband requirements?

5-4 Comments are sought on the need for public safety broadband radio systems to be interoperable:
(a) between various Canadian public safety agencies;
(b) between Canadian and U.S. public safety agencies.

5-5 What are the challenges faced today by public safety agencies to have cross-border radio interoperability in other frequency bands?

Tbaytel believes that spectrum for public safety in Canada must be allocated for both emergency and disaster relief situations. This includes internally but also externally to Canada with our neighbour the U.S. which Canada shares a 5,000 mile undefended border. This interoperability is an important requirement for the public safety community.

Further, Tbaytel believes that Industry Canada should allocate 20 MHz (10 + 10) of contiguous spectrum in the 700 MHz band for support for Category 1 or 2 or 3 users or agencies which first respond to safety of life or property be it police, fire, emergency medical services to forestry, border protection and hazardous material clean-up to name several. To provide the necessary capacity for future data applications, this 20 MHz of

public safety spectrum will allow the best use of broadband technologies such as Long Term Evolution (LTE). Deployment of LTE by commercial operators may provide further roaming opportunities for public safety onto commercial networks for routine communications in the adjacent 700 MHz bands.

6. Changes to Canadian Table of Frequency Allocations

6-1. The Department seeks comments on its proposed changes to the *Canadian Table of Frequency Allocations* for the band 698-806 MHz.

Tbaytel agrees with the proposed changes.

Spectrum Utilization Policy

6-2. The Department seeks comments on the spectrum utilization policy proposed above.

Tbaytel agrees with the Mobile Broadband Services (MBS) designation for commercial radio systems deployed in the 700 MHz band and that the 700 MHz band will be dedicated to MBS with the exception of any frequency ranges possibility designated for public safety.

7. Promoting Competition

7.2 Specific Mechanisms Applicable to the 700 MHz and 2500 MHz Auctions

Spectrum Set-aside

7-6 (b) If the Department were to implement a set-aside in the 700 MHz auction:
(i) Who should be entitled to bid in the set-aside block(s) and should the entitled bidders be restricted to bidding on the set-aside only?
(ii) How much spectrum should be set-aside and which block(s) should be set-aside?
(iii) If the set-aside were to include multiple blocks of spectrum, should they be contiguous?

(iv) What restrictions should be put in place to ensure that policy objectives are met (for example, should trading of the set-aside spectrum be restricted for a given time period)?

7-7 . Are there other mechanisms that should be considered and, if so, how should these be applied?

7-8 . The Government of Canada has undertaken a consultation on potential changes to the foreign investment restrictions that apply to the telecommunications sector. How would the adoption of any of the proposed changes affect your responses to the questions above?

Tbaytel believes that Spectrum Set-aside applicable to 700 MHz Auction is the mechanism to promote further competition in areas where regional carriers exist and also where SILECs who are looking to become new entrants in their small serving territories but due to current large Tier sizes is unaffordable. Spectrum Set-aside would be an opportunity for small carriers like Tbaytel to obtain spectrum they currently either do not have or need additional to serve their predominantly rural areas. Measures like set-asides are one way of enhancing and/or sustaining competition in the market place.

For a regional carrier like Tbaytel who previously bid on the very large Northern Ontario Tier 2-09, this area is so big that it could easily be divided into many smaller areas such as "Districts". These Districts already named Algoma, Cochrane, Kenora, Nipissing, Rainy River, Sudbury, Temiskaming and Thunder Bay already have physical boundaries in the Province of Ontario. In using these geographical districts, Tbaytel would gain efficiencies in costs, administration and "windshield time" as well as keeping roaming hand-offs to a minimum.

Included in these Districts is a combination of urban and rural areas where the need exists for the urban areas to support rural rollouts. If Industry Canada supports Tbaytel's suggestion of using Districts as auction sizes particularly in Northern Ontario Tier 2-09,

Tbaytel believes that the carrier would be responsible for serving 50% of the population during the licensing period. This percentage would be similar to the population coverage in the previous 3.5GHz auction.

Further, Tbaytel would like to remind the Department that even with other carriers holding spectrum licences for decades for the same service area as Tbaytel, Tbaytel is the only wireless service provider to have provided contiguous coverage from Sault Ste Marie in the east to the Manitoba border in the west and continues to provide that service today. Without Tbaytel's presence, coverage to these traditionally regional low population density areas would have been unserved.

Tbaytel is of the opinion that Set-aside spectrum should at the minimum be of sufficient spectrum size to be able to support wireless devices and be in contiguous blocks. The amount of spectrum Set-aside must be sufficient to allow carriers to compete on a level playing field with the spectrum with other wireless carriers and to provide carriers with a full opportunity to deploy wireless broadband service.

Also, Tbaytel believes the current restrictions as stated in CPC-2-1-23 Issue 2, September 2007, *Licensing Procedure for Spectrum Licences for Terrestrial Services* is acceptable for those carriers eligible for the transfer and divisibility of set-asides.

On the question of the outcome of the Government of Canada's consultation on foreign investment restrictions, Tbaytel believes that the status quo should continue to exist.

8. Promoting Service Deployment in Rural Areas

8-1. In the above context, the Department seeks comments on challenges and specific problems affecting the deployment of broadband mobile services to low-density rural and remote areas.

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8-2. Is there a need for further regulatory measures or changes to existing regulatory rules (e.g. RP-19) to facilitate service deployments in rural and remote areas that remain unserved and/or underserved?

8-3. Should the Department decide that measures are necessary, comments are sought on specific measures that could be adopted within the 700 MHz spectrum auction process to ensure further deployment of advanced mobile services in rural and remote areas (e.g. roll-out conditions, tier structure, etc.).

As a regional carrier, Tbaytel has made material progress into providing world class wireless services in its rural and remote areas. Being a regional carrier providing wireless services to a predominating rural/remote area, Tbaytel finds providing these services very costly, in terms of capital cost per subscriber and operational costs.

Tbaytel has and will continue to face many challenges and problems in its ongoing commitment to provide broadband mobile services its low-density rural and remote customers. The territory Tbaytel services, "The Canadian Shield" presents its own uniqueness topographically, operationally and administratively.

From a physical perspective, Tbaytel is continually faced with solid rock, swamps, hilly terrain and an abundance of rivers and lakes. Operationally, Tbaytel has to struggle with vast distances between locations, safety along the way, delays in providing service and access to hydro power sources. Administratively, Tbaytel needs to keep up its pool of experienced operational and maintenance personnel who require the necessary skills in dealing with all kinds of situations.

Besides these ever present difficulties and challenges noted above, Tbaytel is also concerned with the financial return on its rural/remote investments.

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On the topic of further regulatory measures or changes to existing regulatory rules to facilitate service deployments in rural and remote areas, Tbaytel believes that if a carrier obtains auctioned spectrum, that carrier should be forced to use that spectrum. If the carrier doesn't' use the spectrum, then Industry Canada should take the spectrum back. This "forced use" will keep the playing field level between carriers.

Accordingly, Tbaytel must remind Industry Canada that along with the forced use, a reasonable timeframe for use of the spectrum should be established especially for those customers in rural/remote areas. This forced use during a reasonable timeframe should also be made a Condition of Licence for the carrier.

In addition to Tbaytel advancing the use of Districts as tier sizes, as stated earlier in our submission, Tbaytel further believes that 50% of highway coverage and 50 % population coverage are two other criteria regional carriers require in providing wireless service to customers in rural and remote areas.

With the use of Districts, the 50% population coverage and the 50% highway coverage, Tbaytel feels that the use of these criteria together strikes a fair balance for a regional carrier in providing the impetus in championing the latest wireless technology to its rural/remote customers.

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