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15 June 2009

by Email

Mr. Peter Hill
Director – Spectrum Management Operations
Radiocommunications and Broadcasting Regulatory Branch
Industry Canada
300 Slater Street
Ottawa, ON K1A 0C8

Dear Mr. Hill:

**Subject: Comments - Consultation on Transition to Broadband Radio Service (BRS)
 in the Band 2500-2690 MHz, Canada Gazette, Part I, 14 March 2009 - DGRB-
 005-09**

Pursuant to Gazette Notice DGRB-010-09, *Extension to the Comment Period: Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz* and to Notice No. DGRB-005-09, *Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz*, MTS Allstream hereby submits its comments on the issues and questions addressed by Industry Canada in this consultation.

Yours truly,

A handwritten signature in blue ink, appearing to read "Teresa Griffin-Muir".

for Teresa Griffin-Muir

c.c.: Marlene Floyd, MTS Allstream, 613-688-8770

Attachment

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***Consultation on Transition to Broadband
Radio Service (BRS) in the Band 2500-2690
MHz***

Canada Gazette, Part I, 14 March 2009

DGRB-005-09

Comments of



15 June 2009

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1.0 INTRODUCTION

1. Pursuant to Gazette Notice DGRB-010-09, *Extension to the Comment Period: Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz* and to Notice No. DGRB-005-09, *Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz*, MTS Allstream hereby submits its comments on the issues and questions addressed by the Department in this consultation.
2. MTS Allstream welcomes this opportunity to address the issue regarding the transition of 2.5 to 2.690 GHz spectrum to Broadband Radio Service (BRS) to eventually provide Canadian telecommunications carriers with access to additional frequencies to deploy mobile broadband services across the country. The transition to BRS should also be discussed in the context of the current landscape in Canada, as well as the expected future award of new spectrum in the 700 MHz frequency band.
3. Availability of high quality spectrum for all industry stakeholders should be a key objective of government policy. Countries around the world are beginning to recognize this as an important objective and are putting in place measures to ensure that mobile carriers who have entered the market at different times can all acquire spectrum below and above 1 GHz.
4. Furthermore, MTS Allstream agrees with the moratorium on new applications for broadcasting certificates in the band 2.5-2.690 GHz.

2.0 MTS ALLSTREAM COMMENTS REGARDING THE BRS TRANSITION

2.1 Regarding a firm date for the transition to BRS

The Department is seeking comments on its proposal to adopt a firm transition date to BRS rather than renew MCS and MDS licences. Should a firm transition to BRS be adopted, the Department is proposing March 31, 2011, as the transition date to BRS, as it coincides with the end of licence term for the current MCS licences.

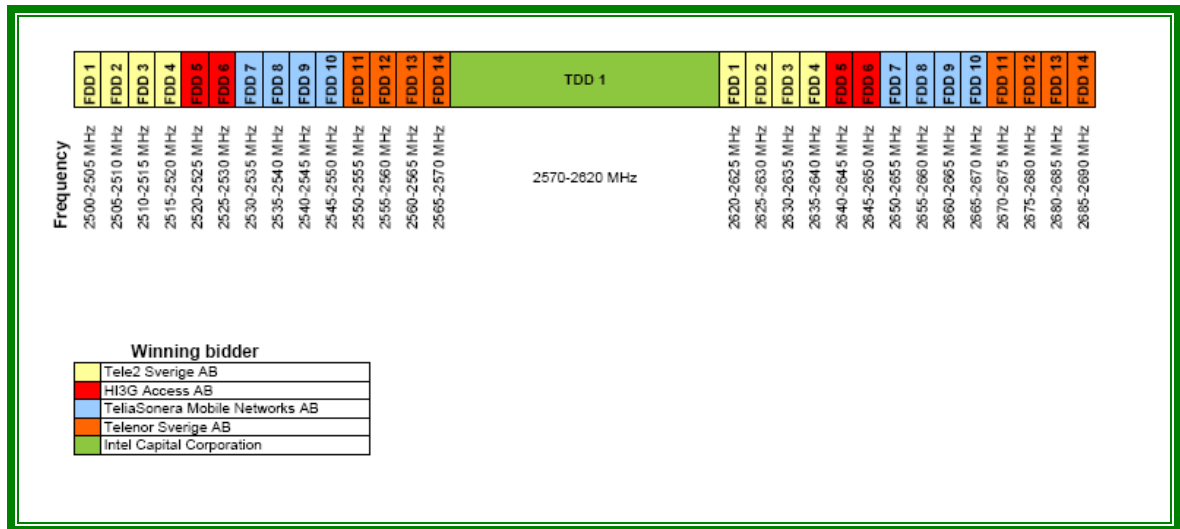
5. As noted in DGRB-005-09, the frequency band 2500-2690 GHz has been identified at the World Radiocommunications Conference (WRC) as a frequency band for the deployment of 3G or IMT-2000 radio services. Many countries already have or are planning to award spectrum in this band for mobile broadband applications.
6. It is MTS Allstream's view that it could be beneficial to Canadian consumers if this frequency band is auctioned in Canada to enable Canadian mobile carriers to benefit from the economies of scale that are derived from similar technologies deployed in the same frequency bands on a worldwide basis.
7. In 2005, or four years ago, the European Commission adopted a band plan¹ that provides for 70 MHz *2 of paired spectrum with unpaired spectrum from 2570 MHz to 2620 MHz in the middle of the band. This band plan is considering the eventual deployment of mobile broadband equipment in this band. This yields a total of 140 MHz of paired spectrum and 50 MHz of unpaired spectrum.
8. Also in 2005, the FCC adopted a similar post BRS transition band plan for the 2.5 to 2.69 GHz band.²
9. Norway conducted the first 2.6 GHz auction in November 2007 and Sweden followed suit in May 2008. Both Sweden and Norway awarded national licenses for this spectrum.

¹ Electronic Communications Committee, ECC Decision of 18 March 2005 on harmonized utilization of spectrum for IMT-2000/UMTS systems operating within the 2500-2690 MHz band.

² <http://wireless.fcc.gov/services/brsebs/data/BRS-EBS-BandPlans.pdf>.

10. Figure 1 provides the band plan as well as the results of the Swedish auction, for information purposes. Four mobile carriers secured from 2*10 MHz to 2*20 MHz of spectrum while Intel Capital acquired the unpaired band. All of the spectrum made available at the auction was acquired.

Figure 1
Licenses awarded during the Sweden 2.6 GHz auction in 2008



11. In both Sweden and Norway, these bands were awarded on a technology and service neutral basis, implying that the owners of the spectrum can deploy any type of technology or offer any type of service they wish. In both countries, licence duration has been set at 15 years and there were no network roll out requirements associated with these licences.
12. A number of other countries have either already initiated consultations leading to auctions or plan to auction 2.6 GHz spectrum in 2009 or 2010. This includes the United Kingdom, Finland, France, Germany and Belgium among others. The United Kingdom hopes to invite applications in the summer of 2009 and to begin the auction in September, pending the resolution of litigation initiated by existing licensees³.

³ Ofcom Update on 2.6 GHz Award, 26 March 2009.

13. In the US, this frequency band is already in use for 4G deployment (and pre WiMax portable high speed Internet) by Sprint Nextel and its partners via their Clearwire affiliate. As stated on their web site “Clearwire currently provides 4G service, utilizing WiMAX technology in two markets and provides pre-WiMAX communications services in 50 markets across the U.S. and Europe”.⁴
14. DGRB-005-09 proposes that the bands 2535-2568 MHz and 2657-2690 MHz be made available via an auction, corresponding to 33MHz *2 of paired spectrum or less than 50% of the total paired spectrum capacity of 70 MHz allocated for these bands in the EU as well as in the US.
15. This recommendation follows the policy set out in Notice No. DGTP-002-06, *Policy Provisions for the Band 2500-2690 MHz to Facilitate Future Mobile Service* of March 2006.
16. The 2006 policy considers that existing licensees should have to return a portion of their spectrum since the original rights of the licence did not include mobile use:

“Should an existing MCS or MDS licensee, authorized to operate in the 2500 MHz band, wish to offer mobile services, they may apply to the Department for a new spectrum licence in the mobile service. The Department may issue a new spectrum licence which will include mobile service for approximately two-thirds of the originally authorized spectrum in the 2500 MHz band and one-third will be returned to the Department subject to the following: In order to implement mobile service, the Department will adopt a new band plan (see section 5), taking into account the needs of incumbents and other requirements.”⁵
17. At paragraph 4 of DGTP-002-06, the Department also indicated that “[t]he Department will initiate a public consultation as soon as possible to establish the policy framework for licensing spectrum permitting mobile in the band using an auction process”.
18. This frequency band in Canada is predominantly held by Bell Canada and Rogers. The spectrum distribution shown in the table below assumes that Bell and Rogers will

⁴ <http://newsroom.clearwire.com/phoenix.zhtml?c=214419&p=irol-overview>.

⁵ DGTP-002-06, Par. 3.2.

continue to hold approximately two-thirds of the MDS/MCS spectrum after conversion to BRS. Presumably TELUS and/or new entrants would hold the remainder of this frequency band, which is not shown in the table below. On this basis, Bell and Rogers together would hold more than 70% of all mobile spectrum awarded in Canada. All new AWS entrants would collectively hold no more than 12% of all mobile spectrum awarded in Canada, prior to the future auction of returned BRS spectrum.

Table 1
Summary of Spectrum Holdings of Mobile Carriers
in Canada assuming the Mandatory BRS Transition

<i>Average MHz per market</i>	Rogers/Bell Mobile+BRS	Telus Mobile	Entrant	
			AWS B,C,D	% of mobile
Top 32 Markets (67% of Cda)	262	65	40	10.9%
Toronto, Montreal, Ottawa	292	66	40	10.1%
Vancouver, Calgary, Edmonton	220	74	40	12.0%

If BRS converted to mobile and one third returned to IC for re-licensing

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19. There are no public reports as to the level of usage of the frequencies in the 2.5-2.69 GHz band in any region of the country.

20. MTS Allstream recommends the following to the Department:
 - a. Yes, to a transition date to BRS for all current licensees in these bands that have not yet transitioned to BRS.

 - b. Yes, to a transition date at the expiration of current licenses on 11 March 2011 or thereafter depending on the timing of the 700 MHz auction. This would mean that all MCS and MDS licensees would become BRS licensees on 1 April 2011, or sometime thereafter, retaining a portion of their current spectrum in these bands. New license fees to be determined in a future consultation would subsequently apply to fully reflect the mobile allocation of these frequency bands.

21. The drivers of the timelines for the transition should be the requirements of the overall Canadian industry for additional mobile spectrum. There should be some clarity as to this requirement following the 700 MHz auction, after which the Department could publish a timeline for an auction of the BRS spectrum.
22. The Department should consider that Canadian mobile carriers (other than Bell and Rogers), will only be able to access less than 50% of the total spectrum being awarded in the 2.5 to 2.69 GHz frequency band when compared with carriers in European countries, to help fulfill the promises and consumer benefits of mobile broadband across Canada and that this spectrum will be much sought after. This raises a question for the treatment of the existing MCS licensees and their affiliates, who will become BRS licensees.

2.2 Regarding the school board licensees and commercial MCS licenses in Manitoba

The Department seeks comments on the options that should be applied to the Manitoba school boards and the commercial MCS licensee:

- ***Option 1 – Eligible for conversion to BRS;***
- ***Option 2 – Subject to a transition policy; or***
- ***Option 3 – Grandfathered.***

23. Mobile broadband services will be the best use of this spectrum over the coming years. Mobility implies near ubiquity of service wherever one is located at any point in time.
24. For this reason, MTS Allstream recommends that existing licensees in Manitoba be subject to the transition policy, i.e. Option 2, and be required to comply with the terms and conditions of a BRS licence post the established transition date and return the appropriate portion of the spectrum they currently hold within the 2.5-2.690 GHz band, as per the Department's transition policy. This approach will ensure that a seamless 2*33 MHz BRS spectrum be made available on a national basis in the upcoming BRS auction for returned or liberated spectrum.

25. MTS Allstream recommends that a suitable notification period of two years should be adopted, similar to the notification period provided to users in this frequency band before the award of the MCS licences⁶.

Industry Canada invites comments on which component(s) (i.e. CRTC Decision, Industry Canada broadcasting certificate, and CRTC licence) should be required for licensed MDS in order to qualify for conversion to BRS in a given area.

Should MDS stations that do not meet the eligibility criteria be protected through a transition policy (notification period prior to displacement) in the event that a firm transition date to BRS is adopted?

26. In keeping with the same objectives as those identified above, namely that mobile broadband services will be the best use of this spectrum over the coming years implying near ubiquity of service wherever one is located at any point in time, the Department should consider a policy where the licence of existing MDS licensees that have yet to deploy their service would not be renewed. In light of the evolution of wireless cable over the last five years, it seems unlikely that new wireless broadcasting distribution systems would be deployed at this point in time.
27. In the event that there are some MDS licensees in operation without a current or pending Department broadcasting certificate, MTS Allstream recommends that these licensees be given a period of six months to make an application to the Department for a broadcasting certificate to enable them to meet the eligibility criteria for the BRS transition.

Comments are also sought on whether CRTC licence-exempt systems that serve small, rural and remote communities having small populations should be treated differently from the CRTC-licensed systems.

28. MTS Allstream agrees that licence-exempt RDUs operating in the 2.5 to 2.69 GHz band be treated differently than those subject to the CRTC's BDU licensing regime because these systems are low power and unlikely to hinder the future deployment of BRS. In the event that this assumption is challenged in a particular deployment, then MTS

⁶ Letter of the Department to Carleton University, 18 May 2000.

Allstream recommends that these RDUs be required to relocate their operations to other frequency bands as identified by the Department with a two-year notification period.

Should these undertakings not be eligible for conversion and a firm transition date to BRS is adopted, the Department seeks comments on what would constitute a suitable notification period for these stations to retune to available frequencies or cease operating. Notification would be given only if the MDS station would prevent the deployment of a BRS system.

29. As noted above, for all relocation cases, MTS Allstream recommends a two year notification period. In the case of RDUs, MTS Allstream agrees that notification would be given only if the MDS station would prevent the deployment of a BRS system.

Industry Canada seeks comments on whether Tier 3 or Tier 4 licence areas are the most appropriate for the conversion of site-specific MCS licences to BRS spectrum licences, where applicable, and for conversion of MDS authorizations, including Industry Canada spectrum licences issued in the 2596-2690 MHz band.

30. MTS Allstream recommends that Tier 2 licence areas corresponding to the smallest geographic footprint that should be used to allocate this spectrum band to maximize the benefits and the potential deployment of mobile broadband services to Canadian consumers. MTS Allstream considers that the increased potential fragmentation resulting from Tier 3 and Tier 4 licence areas is detrimental to Canadian consumers being able to benefit from seamless mobile broadband services across the country using the BRS frequency band.
31. As an alternative to Tier 2 geographic licence areas, MTS Allstream also considers that geographic licence areas that would focus on urban areas separate from the rural areas could be of significant benefit to future BRS licensees. MTS Allstream has provided comments on a geographic license area split between urban and rural areas as part of its response to DGRB-001-09. MTS Allstream recommends that the Department take into consideration the feedback regarding geographic licensing areas provided in the submissions in response to DGRB-001-09 as part of the framework for the auction of liberated BRS spectrum.

3.0 LICENSE FEES

32. MTS Allstream agrees with the Department's policy to consult on new licence fees applicable to all BRS licenses issued to incumbents following either a voluntary conversion to BRS or after the mandated transition date.

4.0 MTS ALLSTREAM RECOMMENDATIONS REGARDING THE PROPOSED BRS LICENSE CONDITIONS

4.1 Licence Term

33. MTS Allstream recommends that BRS licenses should have a minimum term of 15 years in order to provide a suitable period for return on investment of BRS licensees and the certainty required to finance network deployment.

4.2 Licence Transferability and Divisibility and Subordinate Licences

34. MTS Allstream agrees with the procedures provided in CPC-2-1-23 covering licence transferability, divisibility as well as the issuance of subordinate licences.
35. The Department also notes that "should a spectrum cap be implemented in this band, compliance with the spectrum cap will be required when considering a licence transfer or the issuance of a subordinate licence." If all telecommunications carriers, including Bell, Rogers and TELUS, participate in an upcoming auction for the returned BRS spectrum, the Department could consider introducing a spectrum cap.

4.3 Eligibility Criteria

36. MTS Allstream agrees with the eligibility requirements and the need for compliance with sections 10(2) and 9(1) of the Radiocommunications Regulations.

4.4 MTS Allstream recommendations and Comments regarding other proposed Conditions of License (COLs)

37. MTS Allstream takes note of the following COLs, as identified in DGRB-005-09:

- Displacement of Incumbent;
- Radio Station Installations;
- Provision of Technical Information;
- Compliance with Legislation, Regulations and other Obligations;
- Technical Considerations;
- International and Domestic Coordination;
- Lawful Interception;⁷ as well as
- Annual Reporting.

4.5 Research and Development (R&D)

38. As per its comments in DGRB-009-09, MTS Allstream believes that the R&D condition of licence will not provide benefits for customers of BRS licensees in view of the industry's proven track record in innovation. MTS Allstream recommends that this COL be eliminated.

4.6 Implementation of Spectrum Usage

39. The BRS frequency band could become a very valuable spectrum band for deployment of 4G mobile networks in Canada. In terms of implementation, as with other spectrum

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MTS Allstream recommends a phased-in approach for any lawful interception requirements.

allocations, the Department could take an approach that includes specific network population coverage objectives.

4.7 Mandatory Antenna Tower and Site Sharing

The licensee must comply with the mandatory antenna tower and site sharing requirements set out in Industry Canada's Client Procedures Circular, Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements (CPC-2-0-1).

40. Roaming, as well as antenna tower and site sharing, are critical for the deployment and success of BRS licensees. Therefore, MTS Allstream agrees that the mandatory roaming and antenna tower and site sharing requirements, as defined in the COL relating to Mandatory Roaming and Antenna Tower and Site Sharing (CPC-2-0-1), should apply to BRS licensees in addition to cellular, PCS and AWS licensees.

4.8 Stakeholder Proposal Development on a Band Plan for BRS

41. MTS Allstream agrees with the approach proposed by the Department to discuss the evolution to the new BRS band plan with stakeholders and agrees with the three-month time-frame identified by the Department for this consultation.

4.9 Additional consultations

42. MTS Allstream agrees with the Department's plan for additional consultations on:
- a) the Policy and Licensing Framework for the auction of Liberated and Available Spectrum; and on
 - b) the Licence Fees.
43. MTS Allstream agrees that the upcoming consultation on licence fees for BRS licensees should take place after the auction of liberated and available spectrum.

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