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16 May 2011

by Email

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Dear Sir/Madam:

Subject: Canada Gazette, Part I, 12 February 2011, Decisions on a Band Plan for Broadband Radio Service (BRS) and Consultation on a Policy and Technical Framework to License Spectrum in the Band 2500-2690 MHz – SMSE-005-11 – Reply Comments of MTS Allstream Inc.

Pursuant to the procedures set out in the above-referenced Gazette Notice, as amended by Notice No. SMSE-006-11, MTS Allstream Inc. (MTS Allstream) is pleased to submit the attached reply comments.

Failure by MTS Allstream to address any argument or issue raised by any of the parties should not be construed as agreement with or acceptance of such argument or issue where to do so would be contrary to MTS Allstream's interests.

Yours truly,

for Teresa Griffin-Muir

c.c.: Geoff White, MTS Allstream, 613-688-8770

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Decisions on a Band Plan for Broadband Radio Service (BRS)
and
Consultation on a Policy and Technical Framework to License
Spectrum in the Band 2500-2690 MHz

Canada Gazette, Part I, 12 February 2011

SMSE-005-11

Reply Comments of



16 May 2011

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
I. INTRODUCTION	1
II. EQUITABLY PROMOTING COMPETITION IN THE 2500 MHZ BAND	1
III. TIER SIZES	5
IV. BLOCK SIZES.....	6
V. RURAL DEPLOYMENT	8
VI. AUCTION TIMING.....	9

EXECUTIVE SUMMARY

ES1. The comments submitted by interested parties in this Consultation contain a number of areas of general agreement. There is widespread agreement that specific measures are necessary to promote competition in the 2500 MHz band. The main reason parties believe such measures are necessary is prompted by the considerable holdings of BRS spectrum that each of Bell Mobility Inc. (Bell) and Rogers Communications Inc. (Rogers) have in Inukshuk. This position remains irrespective of whether the foreign investment restrictions are changed prior to the auction. As well, there is broad agreement on tier size – predominately a logical mix of Tier 2 and 3 – and the propagation characteristics of 2500 versus 700 MHz spectrum. With the exception of Barrett Xplore Inc. (Barrett), all parties agree that 700 MHz is far better suited for rural deployment.

ES2. Given the significant degree of consensus in this proceeding, MTS Allstream's reply comments will focus on how best to fairly promote competition within the 2500 MHz band.

EQUITABLY PROMOTING COMPETITION IN THE 2500 MHZ BAND

ES3. It is an undisputed fact that there is an excessive concentration of spectrum in the 2500 MHz band in the hands of Bell and Rogers, through their Inukshuk partnership. The Department appears to have recognized that fact in mandating the return of some of that spectrum for auction.

ES4. Thus, the question is not whether measures are needed to promote competition in the band – a question which a majority of parties answered with an unequivocal “yes” – rather, the question is: Which measures should be adopted to ensure an equitable distribution of what

little 2500 MHz spectrum remains in light of (i) the excessive spectrum holdings of Bell and Rogers in the band and (ii) their vast relative access to capital?

ES5. The answer, according to the vast majority of interested parties, including MTS Allstream, is to impose a cap on the incumbents' current holdings in the band, designed to allow entry into the otherwise monopolized BRS spectrum.

ES6. Not surprisingly it is only the incumbents who argue that pro-competitive measures are unnecessary. An open auction, however, will invariably result in a complete monopoly in the band.

TIER SIZES

ES7. MTS Allstream continues to recommend Tier 2 licensing for the 2500 band where possible, recognizing that in some instances (*i.e.*, in Region B) it will not be possible given that Inukshuk has already been issued BRS licences at the Tier 3 level.

ES8. Tier 2 licensing would provide more flexibility for bidders and greater efficiencies because of the larger service coverage areas. In addition, Tier 2 licensing would produce fewer coordination issues and therefore promote more effective use of radio spectrum. Tier 2 licensing would also be consistent with the Department's precedent of issuing MCS licenses to Inukshuk at the Tier 2 level.

ES9. In contrast, smaller tier sizes would not necessarily facilitate a viable and sustainable business case and may increase the amount of frequency coordination needed among neighbouring licensees. Adoption of Tier 4 service areas and unbundling rural service

areas from urban service areas will result in gaps of unassumed licences with absolutely no guarantee that further competition in rural areas will arise as a result of the implementation of the proposal.

BLOCK SIZES

ES10. Generally new entrants argued for larger block sizes (10 MHz or greater) and the incumbents argued for smaller block sizes (5 MHz).

ES11. MTS Allstream agrees with the Department that larger block sizes are desirable from an efficiency perspective, and continues to recommend uniform block sizes of 10 MHz in the FDD and TDD portions of the band. This will allow market participants to achieve the efficiencies associated with wider channels, while also allowing for the possibility of new entry by multiple carriers (assuming MTS Allstream's cap proposal is adopted).

ES12. The incumbents' proposals to establish block sizes in 5 MHz increments could prevent carriers from acquiring contiguous blocks needed to achieve the spectral efficiencies associated with larger block sizes. This concern cannot reliably be overcome by the promise of "voluntary swapping" post-auction, given some parties may have an incentive to block competitors.

DEPLOYMENT

ES13. There is no question that the propagation characteristics of spectrum in the 2500 band makes it less attractive for rural deployments than lower frequency bands such as 700 MHz spectrum, which can cover larger geographic areas at relatively lower cost compared to commercial mobile spectrum in higher frequency bands. Virtually all parties therefore

recommended that the Department not impose mandatory deployment obligations on licensees in the band, in keeping also with the fact that the BRS licences issued to Inukshuk do not contain any deployment targets or conditions.

ES14. Some parties suggested that the Department could establish 5-year roll-out targets similar to those established for AWS licensees as part of the Department's *AWS Licensing Framework*. MTS Allstream agrees that this would give the Department flexibility to promote deployment without forcing uneconomic investments.

AUCTION TIMING

ES15. The Department should note the inherent contradiction between Bell's curious support for a joint auction and letting the market determine the substitutability of 700 MHz spectrum and 2500 MHz spectrum, on the one hand, and Bell's evidence that spectrum in the 700 MHz band is not substitutable with 2500 MHz spectrum, on the other.

ES16. There is no compelling reason to hold a joint auction. The low frequency 700 MHz spectrum is not interchangeable with the high frequency 2500 MHz spectrum from a technological and strategic perspective, and the holding of a joint auction would, in relative terms, represent a more onerous financial challenge to new entrants.

ES17. The Department should sequence the 700 MHz and 2500 MHz auctions such that the smaller players have enough time to deploy whatever 700 MHz spectrum they purchase, and to raise sufficient funding to participate meaningfully in the 2500 MHz auction.

I. INTRODUCTION

1. MTS Allstream is pleased to provide its reply comments in the Department's Decisions on a Band Plan for Broadband Radio Service (BRS) and Consultation on a Policy and Technical Framework to License Spectrum in the Band 2500-2690 MHz, SMSE-005-011 (the 2500 MHz Consultation Document), dated 12 February 2011.
2. The comments submitted by interested parties in this Consultation contain a number of areas of general agreement. To begin with there is widespread agreement that specific measures are necessary to promote competition in the 2500 MHz band. The main reason parties believe such measures are necessary is prompted by the considerable holdings of BRS spectrum that each of Bell Mobility Inc. (Bell) and Rogers Communications Inc. (Rogers) have in Inukshuk. This position remains irrespective of whether the foreign investment restrictions are changed prior to the auction. As well there is broad agreement on Tier size – predominately a logical mix of Tier 2 and 3 – and the propagation characteristics of 2500 versus 700 MHz spectrum. With the exception of Barrett Xplore Inc. (Barrett), all parties agree that 700 MHz is far better suited for rural deployment.
3. Given the significant degree of consensus among interested parties in this proceeding, MTS Allstream's reply comments will focus on how best to design the auction of spectrum in the 2500 MHz band in such a way as to fairly promote competition within the band.

II. EQUITABLY PROMOTING COMPETITION IN THE 2500 MHZ BAND

4. It is undisputed amongst the parties that Bell and Rogers, through their Inukshuk partnership, already have a significant amount of the available 2500 MHz band

spectrum. As noted by EastLink,¹ Shaw Communications,² Public Mobile,³ Quebecor,⁴ Niagara Networks,⁵ and TELUS⁶, among others, certain measures are necessary to promote competition within the band. The Department has already taken steps to promote more competition by mandating the return of some of that spectrum. Therefore, as Public Mobile intimated, allowing incumbents to purchase any of that returned spectrum would run counter to the Department's intention to promote competition.

The Incumbents should not be permitted to bid on 2500 MHz spectrum in the auction process as they do not have any need for additional spectrum, and it is clearly the policy and intention of the Department to ensure that the 2500 MHz spectrum comprising the auction be allocated and deployed commercially by carriers other than the Incumbents. [...] The reason the Department has mandated the

¹ Comments of Bragg Communications Inc. operating as EastLink, 19 April 2011 at paras. 8-10. "The simple fact is that much of the 2500 MHz spectrum is concentrated in the hands of one provider, Inukshuk; a joint venture formed by Bell Canada and Rogers Communications in 2005."

² Comments of Shaw Communication Inc., 19 April 2011 at para. 6. "Bell and Rogers, through their Inukshuk joint venture, along with SaskTel (the 'BRS Incumbents') hold nearly all of the spectrum that has been licensed to date in the 2500 MHz band. In fact, Inukshuk alone accounts for over 50% of the licensed spectrum in the band.⁴ There are no wireless new entrants that hold spectrum in this band, nor are there any commercial mobile providers in the band other than the BRS Incumbents." See also para. 46. "Because of their significant spectral holdings and their dominant position in the market, the wireless incumbents generally, and the BRS Incumbents in particular, are highly incented to acquire all of the available 2500 MHz spectrum in the auction in order to foreclose new entrant access and market entry. "

³ Comments of Public Mobile Inc., 18 April 2011 at 9.

⁴ Comments of Quebecor at paras. 35-38. "QMI submits that the Department must take an active role in ensuring an equitable distribution of the 2.5 GHz band. Otherwise, there is a serious risk that the band will become the exclusive preserve of the incumbent carriers, to the detriment of other carriers who seek to share in the substantial benefits of the band and thereby improve their offerings to the public."

⁵ Comments of Niagara Networks Incorporated, 19 April 2011 at para. 7.0. "Currently, the Big 3 have 85% of the total available spectrum. Even TELUS has more spectrum than all new entrants combined. Having such an advantage does not promote a healthy competitive market and will only lead to further industry consolidation." See also para. 10.0 "As noted from the 700 MHz consultation, the Big 3 already holds 85% of all available spectrum resources both above and below 1.0 GHz. In particular, Bell and Rogers hold an enormous amount of 2500 MHz spectrum already. TELUS shares spectrum and networks with Bell and for all intents and purposes they should be considered affiliates. Therefore the Big 3 and their affiliates should not be allowed to participate in this auction in order to provide new entrant competition an opportunity to develop sustainable competition. That competition should be free from the anticompetitive practices the Big 3 has been employing via leveraging their vast spectrum holdings."

⁶ Comments of TELUS, 19 April 2011 at paras. 15-25.

return and auction of 2500 MHz spectrum is to promote competition utilizing this band of wireless spectrum.⁷

5. Accordingly, the fundamental issue facing the Department in this Consultation is not whether pro-competitive measures are needed, but rather *what* those measures should be. The answer, according to the vast majority of interested parties in this proceeding, is a cap on spectrum holdings in the band. For example,
- i. Barrett Xplore proposed an “in-auction spectrum cap” of 30 MHz;
 - ii. Quebecor proposed an “in-band spectrum cap” of 40 MHz in the paired portion of the BRS band;
 - iii. Shaw proposed an “in-band spectrum cap” of 40 MHz (regardless of whether this is held in the paired (FDD) or unpaired (TDD) portion of the band);
 - iv. TELUS proposed a cap at each of the incumbent’s current holdings;
 - v. EastLink and Public Mobile proposed that Bell, Rogers, Inukshuk and TELUS be banned from the 2500 MHz auction, outright;
 - vi. Public Mobile argued that Bell, Rogers and Inukshuk be banned, outright; and
 - vii. MTS Allstream proposed grandfathering the current incumbents and implementing a spectrum cap within the 2500 MHz band consisting of a total of 40 MHz of paired and/or unpaired spectrum in any given licence area.

⁷ Comments of Public Mobile, 19 April 2011 at 9-10.

6. On their face, these proposals may appear different, but fundamentally they are the same - they are designed to allow entry into the otherwise monopolized BRS spectrum.
7. Not surprisingly, Bell and Rogers (and the other incumbents, SaskTel and SSi) are the only parties who consider that pro-competitive measures are not necessary. In essence, the incumbents, argue that: (i) their customers need them to acquire more spectrum in the 2500 MHz band or else Canada will regress technologically; and (ii) other possible entrants in the band missed their chance to acquire this spectrum in the first place⁸, and so they should not now be afforded any special treatment.
8. Neither Bell nor Rogers have offered any compelling reasons as to why their need for spectrum in the band (to the extent that such a need can even be said to exist) is any greater than that of other wireless carriers (regardless of market position), nor have either of them been able to establish any link between their purported needs for additional 2500 MHz spectrum and the special treatment they are seeking in the form of an open auction which will invariably result in a complete monopoly in the band. In this regard, the suggestion by Rogers that Inukshuk's network provides for "vigorous competition at the retail service level between Inukshuk's two partners"⁹ is surprising, especially in the absence of "vigorous competition" in the 2500 MHz band.
9. Thus, the question is not whether measures are needed to promote competition in the band – a question which a majority of parties answered with an unequivocal "yes" – rather, the question is: Which measures should be adopted to ensure an equitable distribution of what little 2500 MHz spectrum remains in light of the

⁸ Comments of Rogers, 19 April 2011 at para. 5. "As the only entity willing to take the risk and make substantial investment in the 2500 MHz band, Inukshuk now holds a considerable amount of 2500 MHz spectrum in certain geographic areas." See also Comments of Bell Mobility at para. 41 *et seq.* "Moreover, it is important to note that there have been numerous occasions, including several outside of Industry Canada's licensing processes, to purchase mobile spectrum in Canada."

excessive spectrum holdings of Bell and Rogers in the band and their vast relative access to capital?

10. MTS Allstream's proposal to (i) grandfather the incumbents at their current holdings; and (ii) impose a 40 MHz cap (regardless of FDD or TDD spectrum) is a balanced approach to promoting competition in the band – striking the appropriate balance in ensuring fair and equitable access to a valuable spectrum resource.

III. TIER SIZES

11. Most parties recommended that licences in the 2500 MHz band be established on either a Tier 2 or Tier 3 basis or a logical mix of these two tier sizes.
12. MTS Allstream recommended Tier 2 licensing, on the basis that licensing spectrum in larger geographic areas would provide more flexibility for bidders and greater efficiencies because of the larger service coverage areas. In addition, Tier 2 licensing would produce fewer coordination issues and therefore promote more effective use of radio spectrum. In contrast, smaller tier sizes would not necessarily facilitate a viable and sustainable business case and may increase the amount of frequency coordination needed among neighbouring licensees.
13. MTS Allstream also noted in its initial comments that the MCS licenses that were originally issued by the Department to Inukshuk in the 2500 MHz band cover Tier 2 geographic licensing areas. Consistent with this precedent, we recommended that spectrum in the 2500 MHz band be auctioned at the Tier 2 service area level.
14. Most of the parties to this consultation who submitted comments on the issue of tier sizes made similar observations, with some recommending that the Department adopt a Tier 2 licensing approach and others recommending a Tier 3 approach.

⁹ Comments of Rogers at para. 4.

Still others recommended that the Department adopt a mix of Tier 2 and Tier 3 licenses, but only to take account of the fact that in Region B it would not be possible to adopt a uniform Tier 2 licensing approach because BRS licences have already been issued to Inukshuk in some areas.

15. Barrett proposed that the Department adopt Tier 4 service areas and unbundle the rural service areas from urban service areas. As explained in MTS Allstream's Reply comments in the recent 700 MHz Consultation, there is no evidence that a clear social or economic benefit would result from the creation of rural licences.¹⁰ On the contrary, creation of special rural tiers will result in gaps of unassumed licences with absolutely no guarantee that further competition in rural areas will arise as a result of the implementation of the proposal. Moreover, as noted by the Department,¹¹ there are far less complex and burdensome ways to achieve rural broadband deployment.
16. MTS Allstream therefore continues to recommend Tier 2 licensing for the 2500 band where possible, recognizing that in some instances (*i.e.*, in Region B) it will not be possible given that Inukshuk has already been issued BRS licences at the Tier 3 level.

IV. BLOCK SIZES

17. Based on a review of the submissions of interested parties in this Consultation, it would appear that parties are split on the question of whether the Department should adopt block sizes of 5 MHz increments on the one hand or 10 MHz or greater on the other.

¹⁰ Reply Comments of MTS Allstream, *Canada Gazette*, Part I, 4 December 2010, Vol. 144, No. 49, Notice No. SMSE-018-10, *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*, 6 April 2011 at paras. 25-28.

¹¹ Industry Canada, *Decisions on the Revisions to the Framework for Spectrum Auctions in Canada and Other Related Issues*, March 2011, section 3.4 at 10-11.

18. For example, Bell, Rogers, SaskTel and TELUS take the position that the Department should adopt block sizes of 5 MHz + 5 MHz in the paired (FDD) portion of the band and block sizes 5 or 10 MHz in the unpaired (TDD) portion of the band.
19. In contrast, all of the new entrants have argued for block sizes of 10 MHz + 10 MHz in the FDD portion of the band and 10 MHz to 20 MHz in the TDD portion of the band. Research in Motion even goes so far as to suggest that the Department should adopt block sizes of 30 MHz + 30 MHz in the FDD portion of the band.
20. As the Department noted in the 2500 MHz Consultation Document, the full benefits of LTE will not materialise unless carriers are able to use *at least* 10 MHz + 10 MHz in their LTE deployments.¹² In its Initial Comments in this Consultation,¹³ MTS Allstream agreed with the Department that larger block sizes are desirable from an efficiency perspective. It therefore recommended that the Department adopt blocks sizes that will allow market participants to achieve the efficiencies associated with wider channels, while at the same time ensuring that block sizes are not too large as there is relatively limited 2500 MHz spectrum available for auction, especially in Canada's more populated areas. Specifically, MTS Allstream recommended that the Department adopt uniform block sizes of 10 MHz + 10 MHz in the FDD portion of the band and, where available, 10 MHz blocks in the TDD portion of the band.
21. Not only will using uniform block sizes of 10 MHz + 10 MHz allow participants to realize the greater efficiencies associated with larger block sizes, it will also allow for the possibility of new entry by multiple carriers provided that these block sizes are accompanied by MTS Allstream's proposed cap of 40 MHz in the band. In this

¹² 2500 MHz Consultation Document at 33 (footnotes omitted, emphasis original).

¹³ At paras. 5-6.

regard, we agree with Quebecor Media Inc. (Quebecor) that the adoption of block sizes in the FDD portion of the band of 10 MHz + 10 MHz is a “balanced choice”.¹⁴

22. With respect to incumbents’ proposals to establish block sizes in 5 MHz increments, this approach could prevent carriers from acquiring contiguous blocks of 5 MHz + 5 MHz of spectrum which, as noted above, is absolutely essential to achieving the spectral efficiencies associated with larger block sizes. Any suggestions by the incumbents (e.g., Bell) that this concern could be overcome by “voluntary swapping” of spectrum blocks in the post-auction time frame conveniently ignores the fact that some parties that acquire spectrum in the auction may have a greater interest or incentive in preventing a competitor from assembling contiguous blocks of spectrum than in facilitating this activity. As such, MTS Allstream urges the Department to dismiss the anti-competitive block-sizing proposals of the incumbents and adopt, instead, block sizes of 10 MHz + 10 MHz in the FDD portion of the band and 10 MHz in the TDD portion of the band.

V. RURAL DEPLOYMENT

23. There is no question that the propagation characteristics of spectrum in the 2500 MHz band makes it less attractive for rural deployments than lower frequency bands such as 700 MHz spectrum, which can cover larger geographic areas at relatively lower cost compared to commercial mobile spectrum in higher frequency bands. Each of Huawei and the Radio Advisory Board of Canada cautioned that any mandated roll-out requirements *must* reflect the different propagation characteristics between the 700 MHz and 2500 MHz bands. In fact, it was likely for this reason that virtually all parties recommended that the Department not impose mandatory deployment obligations on licensees in the band. Rather, some parties, such as Quebecor, suggested that the Department could establish 5-year roll-out targets

¹⁴ Comments of Quebecor at para. 14.

similar to those established for AWS licensees as part of the Department's *AWS Licensing Framework*. As Quebecor noted, this would give the Department "flexibility to guide operators' deployment activities without necessarily imposing rigid roll-out obligations that may be difficult to justify economically."¹⁵ MTS Allstream agrees with Quebecor in this regard.

24. Given the propagation characteristics of spectrum in the 2500 MHz band, and given that the BRS licences issued to Inukshuk do not contain any deployment targets or conditions whatsoever, MTS Allstream does not recommend mandatory roll-out conditions of licence.

VI. AUCTION TIMING

25. In the 2500 MHz Consultation Document, the Department explicitly requested that respondents provide their comments on auction timing through the 700 MHz consultation process.¹⁶ Despite this request, Bell has used this proceeding to repeat claims that it made in the 700 MHz Consultation regarding the purported benefits of holding a "joint auction"¹⁷, including the claim that holding a joint auction would allow "the market to determine the appropriate substitutability between 700 MHz and 2500 MHz spectrum".¹⁸
26. This is a curiously out-of-process comment, especially given Bell's own evidence in this proceeding which demonstrates very clearly that spectrum in the 700 MHz band is not substitutable with spectrum in the 2500 MHz band and *vice versa*. Specifically, the report prepared by the Communications Research Centre (CRC) and submitted by Bell in this Consultation describes the different propagation characteristics of 700 MHz spectrum on the one hand and 2500 MHz spectrum on the other and concludes that the "the lower path loss at 700 MHz offers the potential

¹⁵ Comments of Quebecor at para. 50.

¹⁶ 2500 MHz Consultation Document at 41.

¹⁷ Comments of Bell at paras. 12 and 36.

for increased coverage area per base station” and that “fewer base stations would be required at 700 MHz than at 2,500 MHz.”¹⁹

27. There is no compelling reason to hold a joint auction. The low frequency 700 MHz spectrum is not interchangeable with the high frequency 2500 MHz spectrum from a technological and strategic perspective. Furthermore, the holding of a combined auction would, in relative terms, represent a more onerous financial challenge to new entrants. The more time there is in between the auction of the 700 MHz and 2500 MHz auctions, the less of a head start the Big Three and deeper-pocketed carriers will enjoy in the auctions. The Department should therefore sequence the 700 MHz and 2500 MHz auctions such that the smaller players have enough time to (i) deploy whatever 700 MHz spectrum they purchase; and (ii) in between the two auctions, raise sufficient funding to participate meaningfully in the 2500 MHz auction.

* * * End of Document * * *

¹⁸

Ibid.

¹⁹

See page 3 of the CRC report set out in Appendix 3 of Bell's Comments.