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19 April 2011

**by Email**

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Dear Mr. Florea:

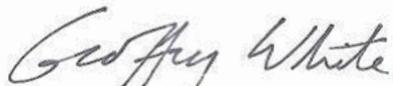
**Subject: *Canada Gazette, Part I, 12 February 2011, Decisions on a Band Plan for Broadband Radio Service (BRS) and Consultation on a Policy and Technical Framework to License Spectrum in the Band 2500-2690 MHz – SMSE-005-11 – Comments of MTS Allstream Inc.***

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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 comments.

As permitted by the Notice, the response to question 3-5 is being filed in confidence in the attachment at Appendix A and marked as confidential. MTS Allstream requests that the Department refuse any requests for disclosure of this confidential information made under the *Access to Information Act* or any other legislation.

Yours truly,



for Teresa Griffin-Muir

Attachment(s)

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

\* \* \* End of Document \* \* \*

***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**

**Comments of**



**19 April 2011**

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## EXECUTIVE SUMMARY

### Important Differences between 2500 MHz and 700 MHz Bands

- ES1. The auction framework for spectrum in the 2500 MHz band should be considered in the context of the current wireless landscape in Canada, as well as the anticipated 700 MHz auction. There are, however, some important differences between the two bands.
- a. 700 MHz spectrum offers better propagation and building penetration characteristics and can cover larger geographic areas at relatively lower cost compared to commercial mobile spectrum in higher frequency bands such as the AWS band.
  - b. The device ecosystem for the 2500 MHz band is still in its early stages, but is expected to be consistent across the band as developed by the International Telecommunication Union, which means that, unlike the 700 MHz band, block(s) in the 2500 MHz band are not influenced as heavily by technologies being developed for the US market.
  - c. Unlike the 700 MHz band, in the 2500 MHz band, there are already parties who hold *substantial* amounts of spectrum in the band. In particular, Bell and Rogers, through their Inukshuk partnership have sizeable spectrum holdings in the 2500 MHz band in every single province and territory in Canada - holding *up to 120 MHz in some provinces*. This is twice the amount of spectrum available for auction in many regions of the country or equal to what is available in other regions.
- ES2. MTS Allstream therefore recommends a spectrum cap in the 2500 MHz band that will prevent those incumbents with already sizeable holdings in the band from acquiring any more 2500 MHz spectrum, while at the same time allowing competitors a chance to gain access to this otherwise-monopolized spectrum.

### **Block sizes**

- ES3. MTS Allstream agrees with the Department that larger block sizes are desirable from an efficiency perspective, and recommends that the Department use uniform block sizes of 10 MHz + 10 MHz in the paired (FDD) portion of the band and, where applicable, 10 MHz blocks in the unpaired (TDD) portion of the band.
- ES4. This block-sizing will allow market participants to achieve the greater efficiencies associated with wider channels, while recognizing that there is a relatively limited amount of 2500 MHz spectrum available for auction, especially in some of the more populated areas of the country. This block-sizing will also allow for the possibility of new entry by multiple carriers.

### **Tier sizes**

- ES5. MTS Allstream agrees fully with the reasons cited by the Department in favour of licensing spectrum in larger geographic areas, especially in light of the fact that smaller tier sizes would not necessarily facilitate a viable and sustainable business case and may cause frequency coordination issues.
- ES6. The MCS licenses that were issued by the Department to Inukshuk in the 2500 MHz band cover Tier 2 (or larger) geographic licensing areas. Consistent with this precedent, MTS Allstream recommends that spectrum in the 2500 MHz band be auctioned at the Tier 2 service area level.

## **Promoting competition**

- ES7. Competition in the Canadian wireless market has a long way to go, especially for rural Canadians and those living in less densely populated regions of the country. Given Inukshuk's significant holdings in the 2500 MHz band, and given the relatively limited amount of spectrum available for auction, even if a prospective bidder were successful in acquiring all spectrum that is available in the auction, that bidder would, in many cases, still not have as much 2500 MHz spectrum as either Bell and Rogers – especially so in the most populous regions of the country.
- ES8. Accordingly, MTS Allstream recommends that the Department implement a spectrum cap within the 2500 MHz band consisting of a total of 40 MHz of paired or/or unpaired spectrum in any given licence area (*e.g.*, a total of 20 MHz + 20 MHz of paired spectrum or, 10 MHz + 10 MHz of paired spectrum *and*, where available, 20 MHz of unpaired spectrum). With respect to Bell and Rogers and their current spectrum holdings in the 2500 MHz band, while MTS Allstream is not proposing that these entities return any of this spectrum, they should not be permitted to acquire any further spectrum in the band where they exceed the 40 MHz cap regardless of the status of their relationship through Inukshuk or otherwise.
- ES9. MTS Allstream's proposed spectrum cap will allow incumbents to continue to develop their spectrum holdings in the band, while at the same time providing new players with a fair opportunity to purchase spectrum in the band.

## **Foreign Investment**

ES10. MTS Allstream commented on the pressing need to lift the foreign investment restrictions in both its 30 July 2010 submission to the Government of Canada, and more recently in its submissions in the 700 MHz consultation. Canada's legislated restrictions on foreign investment in telecommunications, which are far more onerous on entrants and smaller regional players than the large national service providers, present a serious barrier to competitive entry due to the absence and/or very high cost of risk capital in Canada, and they are therefore an ongoing impediment to competition.

ES11. With that said, lifting the restrictions alone will not alter the near-monopoly Rogers and Bell have on the 2500 MHz spectrum, nor would it be sufficient to promote sustainable competition. Additional measures are required, in the form of a spectrum cap, in order to promote competition in the market.

## **Rural deployment**

ES12. High frequency mobile spectrum, consisting of PCS, AWS, and BRS spectrum, is not as efficient as low frequency spectrum for rural deployments. In fact, this may be one of the reasons why the BRS licenses that have been issued by the Department thus far do not contain roll-out conditions. Until there are more economic means of deploying mobile wireless services to rural and underserved communities in the 2500 MHz band, MTS Allstream recommends against the adoption of mandatory roll-out commitments for BRS license holders.

## I. INTRODUCTION

1. MTS Allstream is pleased to provide its 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. As emphasized in MTS Allstream's comments in *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*,<sup>1</sup> the auction framework for spectrum in the 2500 MHz band should be considered in the context of the current wireless landscape in Canada, as well as the anticipated auction of new spectrum in the 700 MHz band.<sup>2</sup> As the Department notes in the 2500 MHz Consultation Document, "Developments in the 2500 MHz band and the 700 MHz band have shown that both bands are suitable for the deployment of advanced mobile/broadband networks/services to meet growing user demands."<sup>3</sup>
3. This is not to suggest, however, that both bands should be treated in a similar fashion. There are some important differences between the two bands:
  - i. 700 MHz spectrum offers better propagation and building penetration characteristics and can cover larger geographic areas at relatively lower cost compared to commercial mobile spectrum in higher frequency bands such as the AWS band.<sup>4</sup>

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<sup>1</sup> *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum* SMSE-018-10, November 2010.

<sup>2</sup> *Canada Gazette, Part I, 12 June 2010 - DGSO-001-10 – Consultation on changes related to the band plan further to Consultation on Transition to Broadband Radio Service (BRS) in the Band 2500-2690 MHz, Canada Gazette, Part I, 14 March 2009 - DGRB-005-09*

<sup>3</sup> 2500 MHz Consultation Document, at 1.

<sup>4</sup> Comments of MTS Allstream, *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum* SMSE-018-10, 28 February 2011 at paras. 12-13 (Initial 700 MHz Comments); see also, from same consultation, e.g., Comments of Bell

- ii. The device ecosystem for the 2500 MHz band is still in its early stages, but is expected to be consistent across the band as developed by the International Telecommunication Union. This is different than the device ecosystem in the 700 MHz band, where there is currently a different technology associated with the upper and lower portions of the band, *i.e.*, Lower B and Lower C have been deployed using GSM/UMTS/HSPA compatible devices, and Upper B and C have been deployed using CDMA/EVDO compatible devices. What this means is that, unlike the 700 MHz band, block(s) of spectrum in the 2500 MHz band are not influenced as heavily by technologies that are being developed for the US market.
  - iii. As discussed below, unlike the 700 MHz band, in the 2500 MHz band, there are already parties who hold *substantial* amounts of spectrum in the band. In particular, Bell and Rogers, through their Inukshuk partnership have sizeable spectrum holdings in the 2500 MHz band in every single province in Canada. No other party (with the exception of SaskTel) is in a remotely comparable position.
4. MTS Allstream therefore recommends, as detailed below, a spectrum cap in the 2500 MHz band that will prevent those incumbents with already sizeable holdings in the band from acquiring any more 2500 MHz spectrum, while at the same time allowing competitors a chance to gain access to this otherwise-monopolized spectrum.

## II. BLOCK SIZES

**In preparation for the future licensing of the 2500 MHz spectrum, the Department seeks comments on the following:**

### **Q1-1 Should the block sizes be uniform in size?**

- (a) If a uniform size is preferred, what size should be considered?**
- (b) If a mix of block sizes is preferred, what combinations and arrangements should be considered?**

**Q1-2 In the specific geographic regions discussed above and shown in Appendix A, which block size option(s) should be adopted and why is this option(s) preferred over the other options? Should the combinations and arrangements of block sizes be the same or different in different areas? Provide supporting rationale.**

5. As the Department noted in the 2500 MHz Consultation Document, the full benefits of LTE will not materialise unless carriers are able to use 10 MHz + 10 MHz in their LTE deployments.

While it is possible for some technologies (e.g. LTE and WiMAX) to operate with relatively narrow channels (e.g. 5 MHz), these technologies will deliver greater efficiencies when operating with wider channels of 20 MHz or more. In other words, the wider the channel, the greater the data speeds and spectral efficiencies. In other words, the wider the channel, the greater the data speeds and spectral efficiencies. For this reason, industry experts have recommended that regulators license “4G” spectrum *“in as wide radio channels as possible*. In light of the efficiencies associated with wider channels, the ITU has recommended that IMT-Advanced radio interface technologies provide support for *“scalable bandwidth up to and including 40 MHz.”* Accordingly, while LTE will support channel widths of up to 20 MHz, LTE-Advanced will support channel widths of up to 40 MHz. The need to license relatively wide contiguous blocks of spectrum is underscored in an environment where globally harmonized mobile spectrum is scarce.<sup>5</sup>

6. MTS Allstream agrees that larger block sizes are desirable from an efficiency perspective, and recommends that the Department use uniform block sizes of 10 MHz + 10 MHz in the paired (FDD) portion of the band and, where available, 10 MHz blocks in the unpaired (TDD) portion of the band. This block-sizing will allow market participants to achieve the efficiencies associated with wider channels, while recognizing the reality that there is relatively limited 2500 MHz spectrum available for auction, especially in Canada’s more populated areas.

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<sup>5</sup> 2500 MHz Consultation Document at 33 (footnotes omitted, emphasis original).

7. 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 2500 MHz band (see Section IV below), which is needed to promote competition in the market.

### III. TIER SIZES

**Q2-1 The Department seeks comments on whether the licensing of 2500 MHz spectrum should be based on uniform tier sizes across all spectrum blocks, or on a mixture of tier sizes.**

**Q2-2 Based on your answer above, if a uniform tier size is preferred, what tier size should be adopted? If a mixture of tiers is preferred, please indicate the proposed tier(s) for each spectrum block.**

**Provide supporting arguments for your responses to the above questions.**

8. As MTS Allstream noted in the Department's *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*,<sup>6</sup> the selection of appropriate tier sizes should be driven primarily by considerations related to the promotion of competition and second, the avoidance of unassumed or uncontested licences in certain locations.<sup>7</sup> In this regard, MTS Allstream noted that Tier 4 licensing is likely to result in precisely the opposite result – a higher likelihood of gaps in certain less densely populated regions and in urban areas, smaller tiers would not necessarily facilitate a viable and sustainable business case. In addition, smaller tier sizes are more likely to cause frequency coordination issues.

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<sup>6</sup> *Supra*, note 1.

<sup>7</sup> Reply Comments of MTS Allstream, *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum* SMSE-018-10, 6 April 2011 at para. 23.

9. As noted by the Department in the 2500 MHz Consultation Document, there are several advantages to adopting larger tier sizes in the 2500 MHz band:

Licensing the 2500 MHz spectrum based on larger geographic areas would provide more flexibility for bidders and may result in fewer neighbouring service providers, translating into less coordination between licensees and more effective use of radio spectrum. Moreover, large service areas could foster larger regional mobile services, which could reduce the number of roaming arrangements between licensees.<sup>8</sup>

10. In addition, the Department noted that:

Larger geographic service areas would also enable the development of efficient large-scale networks due to economies of scale. Wireless mobile networks are capital-intensive. Considerable capital and operational costs are required for items not directly related to the provision of wireless coverage in the field (research and development, network interconnection(s), operation and support systems, marketing, etc.). These costs need to be supported from services marketed to a sufficiently large subscriber base. Furthermore, a large or national footprint may be an asset when marketing high mobility services.<sup>9</sup>

11. MTS Allstream agrees fully with the reasons in favour of licensing spectrum in larger geographic areas, especially in light of the fact that the amount of spectrum available for auction is relatively limited (especially in Region B). MTS Allstream also notes that the MCS spectrum in the 2500 MHz band that has been licensed to Inukshuk, the sole holder of more than the lion's share of 2500 MHz spectrum across Canada, has been licensed on a Tier 2 (or larger) basis. Consistent with this precedent, MTS Allstream recommends that spectrum in the 2500 MHz band be auctioned at the Tier 2 service area level.

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<sup>8</sup> 2500 MHz Consultation Document at 34.

<sup>9</sup> *Ibid* at 34-35.

#### IV. PROMOTING COMPETITION

##### 4.1 Spectrum Aggregation Limits and Spectrum Set-Asides

**Q.3-1 If the Department determines that there is a need for measures to promote competition in the wireless services market, which of the above mechanisms would be most appropriate in the 2500 MHz band and why should this mechanism be considered over the other? Comments should also indicate if further restrictions should apply.**

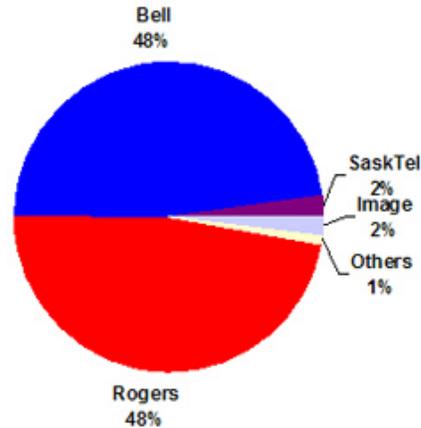
12. As MTS Allstream and a significant majority of respondents noted in the 700 MHz consultation, competition in the Canadian wireless market has a long way to go, especially for rural Canadians and those living in less densely populated regions of the country.<sup>10</sup>
13. In the case of 700 MHz spectrum, the key challenges facing the Department are (i) a very limited amount of low-frequency (better propagation) spectrum available for auction – a total of 68 MHz assuming that the Department adopts the US Band Plan; and (ii) developments in the US for use of that spectrum have made certain portions of the band more or less attractive to Canadian carriers.
14. In the case of 2500 MHz spectrum, the principal policy challenge is that *one* party, namely the Inukshuk partnership consisting of Bell and Rogers, holds much more than the lion's share of spectrum in this band. As illustrated in Figure 1, below, Bell and Rogers have sizeable spectrum holdings in the band in every single province in Canada. No other party (with the exception of SaskTel) is in a remotely comparable position.

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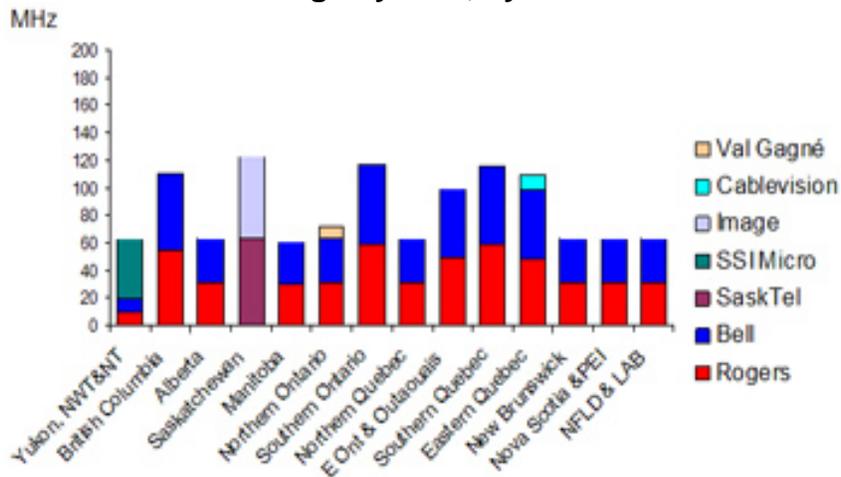
<sup>10</sup> Initial 700 MHz Comments of MTS Allstream at 18.

**Figure 1 – BRS Holdings<sup>11</sup>**

**BRS Holdings (190 MHz: 2500-2690 MHz)  
 Percentage of Total Holdings (weighted by population)**



**Total Holdings by MHz, by Service Area**



Source: Industry Canada, SMSE-018-1

15. As noted by the Department in the 2500 MHz Consultation Document,<sup>12</sup> in Saskatchewan the MDS spectrum formerly held by YourLink has been transferred to Inukshuk. Consequently, the combined population-weighted percentage of Bell

<sup>11</sup> Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum (the 700 MHz Consultation Document), 30 November 2010, at 7.

<sup>12</sup> At p. 22.

and Rogers' holdings of licensed spectrum in the 2500 MHz band is actually 98 per cent and not the 96 per cent depicted above.

16. In no uncertain terms, Bell and Rogers have a sizeable advantage across Canada - holding *up to 120 MHz in some provinces*. This is twice the amount of spectrum available for auction in many regions of the country.
17. Based on the foregoing, even if a prospective bidder were successful in acquiring all of the spectrum that is available in the auction, the putative bidder would, in many cases, still not have as much 2500 MHz spectrum as either Bell and Rogers – especially so in the most populous regions of the country such as in southern British Columbia, Ontario and Quebec (*i.e.*, Region B).

**In light of your response above, and recognizing that pending decisions on block sizes and tier sizes could influence your response:**

**Q3-2 (a) If the Department were to implement spectrum aggregation limits (caps), should a cap apply to the 2500 MHz band? If a cap is necessary:**

- (i) What should be the size of the cap and should this be specific to either the paired and/or unpaired spectrum bands?**
- (ii) Should bidders and their affiliates or associates share the cap?**
- (iii) How long should the cap remain in effect?**

18. MTS Allstream submits that measures are required in order to preclude Rogers and Bell from acquiring more 2500 MHz spectrum than is reasonably required in any given area, while giving other parties a fair opportunity to acquire spectrum in the band. To allow the incumbents, particularly Rogers and Bell, who already hold more spectrum in the band than is available for auction, to purchase even more spectrum in the band, would severely limit if not deny new competitors' access to this important spectrum resource.

19. MTS Allstream therefore recommends that the Department implement a spectrum cap within the 2500 MHz band consisting of a total of 40 MHz of paired or/or unpaired spectrum in any given licence area (e.g., a total of 20 MHz + 20 MHz of paired spectrum or, 10 MHz + 10 MHz of paired spectrum *and*, where available, 20 MHz of unpaired spectrum).
20. Bidders and their affiliates or associates should share the cap. With respect to Bell and Rogers and their current spectrum holdings in the 2500 MHz band, while MTS Allstream is not proposing that these entities return any of this spectrum, they should not be permitted to acquire any further spectrum in the band where they exceed the 40 MHz cap regardless of the status of their relationship through Inukshuk or otherwise.
21. Although the terms of the 2500 MHz licences have yet to be determined, MTS Allstream recommends that the Department review the cap within five years of the date of issuance of the licence. Such a review period would be consistent with the 5-year prohibition on the transfer, lease, division or exchange of Advanced Wireless Spectrum (AWS) acquired through the set-aside mechanism in the AWS auction.<sup>13</sup>
  - (b) If the Department were to implement a set-aside in the 2500 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 these blocks be contiguous?**

<sup>13</sup>

*Licensing Framework for the Auction for Spectrum Licences for Advanced Wireless Services and other Spectrum in the 2 GHz Range* (DGRB-011-07), December 2007 at 5-6.

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

22. The auction cap proposed above will promote competition and ensure an equitable allocation of the spectrum. The cap will allow incumbents to continue to develop their spectrum holdings in the band, while at the same time providing new players with an opportunity to purchase 2500 MHz spectrum. Given the specific circumstances surrounding the 2500 MHz band, including the presence of two very large incumbents in the band, MTS Allstream believes that a spectrum cap within the band is the more appropriate mechanism to use when establishing the policy and licensing framework for the band.

**Q3-3 Are there other mechanisms that should be considered in the 2500 MHz band to promote competition? If so, how should such mechanisms be applied in this band?**

23. MTS Allstream recommends that the Department maintain as a condition of licence on all commercial mobile wireless licences mandatory antenna tower and site sharing and roaming obligations. As MTS Allstream noted in the 700 MHz consultation,<sup>14</sup> these conditions have worked relatively effectively and have provided needed structure to all market participants, and continue to be necessary.

**Q3-4 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?**

**Please provide supporting evidence and rationale for all responses.**

24. MTS Allstream commented on the pressing need to lift the foreign investment restrictions in both its 30 July 2010 submission<sup>15</sup> to the Government of Canada, and

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<sup>14</sup> Initial 700 MHz Comments at para. 100.

<sup>15</sup> In its 30 July 2010 submission to the Government of Canada: *Opening Canada's Doors to Foreign Investment in Telecommunications: Options for Reform Consultation* (30 April 2010), MTS Allstream

more recently in its submissions in the 700 MHz consultation. Canada's legislated restrictions on foreign investment in telecommunications, which are far more onerous on entrants and smaller regional players than the large national service providers, present a serious barrier to competitive entry due to the absence and/or very high cost of risk capital in Canada, and they are therefore an ongoing impediment to competition. Accordingly, MTS Allstream has advocated for Option 2 of the three options presented by the Government of Canada in *Opening Canada's Doors to Foreign Investment in Telecommunications: Options for Reform*.

25. Option 2 involves the removal of all foreign investment restrictions for new entrants and existing carriers with less than a 10 per cent share of the national telecommunications market. It has a strong evidentiary basis, including the recommendations of both the Telecommunications Policy Review Panel and the Competition Policy Review Panel. While Option 2 is the preferred option – Option 3 – the immediate and complete removal of the foreign investment restrictions for all Canadian carriers, regardless of their size – would also create meaningful change by removing an uncharacteristically protectionist and counter-productive measure from Canadian regulation.
  
26. With few exceptions, all of the market participants responding to the 700 MHz consultation were virtually unanimous in their agreement that lifting the foreign ownership restrictions under the Government's Option 2 or Option 3 would be helpful, that alone would not be sufficient to promote sustainable competition. Additional measures are required in order to promote competition in the market, which is why MTS Allstream is proposing that the Department adopt a 40 MHz spectrum cap within the 2500 MHz band.

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outlined the negative consequences of the prevailing foreign investment restrictions in the telecommunications sector.

**Q3-5 The Department is seeking specific spectrum usage information from current commercial mobile licensees and entities interested in acquiring commercial mobile spectrum:**

**Do you plan to use the 2500 MHz spectrum acquired in the auction with, or on behalf of, another entity, which may participate in the auction? If yes, with which entity?**

**Your comments to this question will be treated as confidential provided that they are submitted separately (e.g. in an appendix) and clearly marked as “Confidential.”**

27. Please see Appendix “A”, filed in confidence.

**V. PROMOTING SERVICE DEPLOYMENT IN RURAL AREAS**

**4-1 Comments are sought on specific measures that could be adopted within the 2500 MHz spectrum auction process to ensure further deployment of BRS in rural and remote areas (e.g. roll-out conditions, tier structure, etc.).**

28. As noted by MTS Allstream in its submissions in the 700 MHz consultation, high frequency mobile spectrum, consisting of PCS, AWS, and BRS spectrum is not as efficient as low frequency spectrum for rural deployments. More specifically, high frequency spectrum is characterised by lower propagation characteristics and a higher tendency to scatter. The design consequence of the physical attributes of higher frequency spectrum is that they require smaller cell radii. Thus, where there is sufficient subscriber density, there may be an economic case to build the dense antenna infrastructure required to deliver mobile communication services using higher frequency spectrum.

29. With respect to rural areas, the propagation characteristics of 2500 MHz spectrum make it less suitable for covering large geographical areas with low population densities. In fact, this may be one of the reasons why the BRS licenses that have been issued by the Department thus far do not contain roll-out conditions.

30. Given these considerations, MTS Allstream recommends against the adoption of mandatory roll-out commitments for 2500 MHz license holders.

\* \* \* End of Document \* \* \*