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6 April 2011

by Email

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Dear Mr. Florea:

Subject: 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 – Reply Comments of MTS Allstream Inc.

MTS Allstream Inc. (MTS Allstream) submits the attached Reply Comments, pursuant to the procedures established in the above-noted consultation, as amended.

Yours truly,

for Teresa Griffin-Muir

Attachment

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

***Consultation on a Policy and Technical
Framework for the 700 MHz Band and
Aspects Related to Commercial Mobile
Spectrum***

Canada Gazette, Part I, 4 December 2010

SMSE-018-10

Reply Comments of



6 April 2011

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
I. INTRODUCTION	1
II. DEMAND for 700 MHz SPECTRUM AND TECHNICAL ISSUES	2
A. General Need for Additional Commercial Mobile Spectrum.....	2
B. Areas of Widespread Agreement.....	3
C. Not All Holders of 850 MHz Band Spectrum Are in the Same Position	5
D. Tier Sizes for 700 MHz Auction of Commercial Spectrum.....	9
III. RURAL COMMITMENTS	12
IV. PROMOTING COMPETITION	17
A. Parties' Responses Regarding State of Competition	17
B. Access to Capital and Acquisition of Spectrum.....	18
C. Foreign Ownership Restrictions and the Need for Specific Regulatory Measures	22
V. SPECIFIC MECHANISMS APPLICABLE TO THE 700 MHZ AND 2500 MHZ AUCTIONS	23
A. Set-Aside in the 700 MHz Spectrum Band	23
B. Spectrum Caps.....	25
C. Post-Auction Market Structure.....	26
VI. AUCTION TIMING	26
VII. CONCLUSION and SUMMARY OF RECOMMENDATIONS	28

EXECUTIVE SUMMARY

- ES1. MTS Allstream proposed a competitor set-aside in the Upper C block of a total of 22 MHz of contiguous spectrum, where this block would be auctioned and licensed on a Tier 3 basis and where eligibility to bid on the set-aside spectrum would be based on annual mobile wireless revenues of such bidder being less than 10 per cent of the national mobile wireless market. MTS Allstream continues to recommend a competitor set-aside as the principal measure that the Department should implement in order to promote competition in mobile wireless services across the country. In addition to setting aside the Upper C block, the Upper C block could be split, as suggested by some, in order to make available another paired block of spectrum in the 700 MHz band.
- ES2. MTS Allstream's proposal also includes roll-out commitments on the Lower B and Lower C blocks – the more desirable blocks of spectrum.
- ES3. With MTS Allstream's proposals, new entrants will have the opportunity they need to continue bringing competition to the Canadian wireless market, without compromising the important ability of holders of 850 MHz spectrum to efficiently deploy rural mobile broadband while continuing to support customers on legacy networks using that spectrum.

The Risk of 'All-or-Nothing' Proposals

- ES4. Every participant, regardless of the group of carriers to which it belongs (small regional carriers; new entrants unaffiliated with an ILEC or cable carrier; cable carriers; or Big Three) has claimed the need for low-frequency (higher propagation, higher

penetration) spectrum, each for distinct reasons. All parties agree that additional spectrum for mobile broadband is required and that mobile broadband applications and services are likely to grow exponentially in the near-term. Furthermore, each group claims that it lacks sufficient spectrum at the present time to meet that need.

ES5. Many unaffiliated new entrants would exclude all current holders of 850 MHz spectrum. To do so would hinder those holders' ability not only to deploy rural broadband in their large serving areas, but also to support three legacy services, all in the face of increasing spectrum demand. On the other hand, the Big Three (and SaskTel) reject the need for a competitor set-aside notwithstanding that, without a set-aside, smaller carriers may easily be outbid by the Big Three given their enormous access to retained earnings and to capital.

ES6. Given that the unaffiliated new entrants are predominantly focused on the densely populated, urban areas of Canada, it is not surprising that the proposal to block 850 MHz holders from the 700 MHz auction ignores the fact that there is large-scale, unfulfilled demand for broadband in rural communities, and would also ignore the future needs that carriers will have to support legacy services currently being served using 850 MHz spectrum.

ES7. Relegating less-densely populated rural areas to LTE or HSPA deployments using higher frequency spectrum holdings (such as AWS or 2500 MHz spectrum) would likely mean that rural areas would once again be left behind, thereby widening the ever-present broadband gap, because no carrier can economically use higher-frequency spectrum to blanket all regions of their territory. With access to higher

frequency spectrum alone, or to insufficient (less than 10 MHz + 10 MHz) of lower frequency spectrum, carriers would instead only be able to “dot the map” by selectively choosing only certain less densely populated areas.

ES8. MTS Allstream considers that if the Department is truly committed to achieving rural broadband, then it is prudent and necessary to mandate roll-out commitments. Moreover, it considers that a condition of licence should:

- a. be attached to the most “desirable” or attractive blocks of spectrum (being the Lower B and Lower C blocks), which will have the greatest potential to attract all manner of bidders, including unaffiliated new entrants;
- b. be attached to blocks with a tier definition that will not result in any “gaps” or “holes” in licence take-up, such that all regions of the country will be blanketed by at least one licensee with a rural commitment; and
- c. be objectively defined in terms of time and geography so as to truly effect broadband mobile deployment in *rural* areas.

ES9. As a result, with respect to attaching a rural deployment condition of licence, MTS Allstream recommends that:

- a. Lower B and C spectrum blocks should be licensed on a Tier 2 basis in order to eliminate the possibility of geographic gaps;
- b. Lower B and C spectrum blocks should be subject to a specific roll-out commitment by way of a condition of licence;
- c. the condition of licence attached to Lower B and C spectrum blocks (licensed at the Tier 2 level) should provide that within 5 years of licence issuance,

licensees are required to make mobile wireless broadband data services (at speeds comparable to speeds available in urban centres) available to at least *80 per cent of the population of each Tier 4 area within the Tier 2 licensed area.*

ES10. MTS Allstream recommends that the rural commitment be attached to specific blocks, rather than throughout the commercial 700 MHz band, because it is unrealistic to mandate a rural roll-out commitment on each and every block of spectrum since not all carriers are positioned to deliver on such commitments.

The Need for Continued Measures to Promote Competition

ES11. While there is certainly general agreement that *some* progress has been made since the time of the AWS auction, competition is only beginning to emerge and there is considerable room for improvement.

ES12. In an auction model where all bidders have unrestricted access to licences on a national basis, it goes without saying that the largest bidders, with the largest pre-existing revenues and predictable cash flows, will be able to generate the most capital to vie for scarce spectrum resources.

ES13. In assessing who should be eligible to benefit from the specific regulatory measures that the Department will adopt in the 700 MHz and 2500 MHz auctions, MTS Allstream recommends that the Department continue to use the criterion of “less than 10 per cent of the national mobile wireless market by revenues”. This definition is consistent with the underlying barrier to entry that the Department is trying to address, namely the relative competitive disadvantage that all smaller players face in vying for scarce spectrum in a public auction process. It also has the merit of being consistent with the

Government's overall approach to assessing market power in the telecommunications marketplace, as illustrated by the criteria used by the Government in its Option 2 proposal for the graduated lifting of the foreign investment restrictions.

Liberalizing Foreign Investment Necessary, but not Sufficient

ES14. MTS Allstream supports Option 2 and urges the Government to lift foreign investment restrictions as soon as possible. With few exceptions, all of the market participants were virtually unanimous in their agreement that while 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. In either scenario, regulatory measures will still be needed to allow new entrants to sustainably compete.

Auction Timing

ES15. The Department should 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. 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.

I. INTRODUCTION

1. MTS Allstream is pleased to provide its reply comments in the Department's *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.
2. Although there is an encouraging degree of consensus on a number of issues, such as current and future spectrum demand and usage patterns, band planning, open access, and changes to the Canadian table of frequency allocations, the parties have diverged on three issues:
 - (i) the need of all market participants, including current holders of 850 MHz spectrum, to have relatively equal access to 700 MHz spectrum;
 - (ii) the need for measures to promote competition; and
 - (iii) the most effective and efficient way to achieve sustainable rural deployment.
3. MTS Allstream will therefore focus these reply comments on the foregoing issues. In so doing, MTS Allstream will reference the main groupings of commercial carriers represented in the consultation, as follows:
 - (a) the **Big Three**;
 - (b) the so-called "**new entrants**", which consists of:
 - (i) **small regional carriers**;¹

¹ MTS Allstream, Saskatchewan Telecommunications (SaskTel), Tbaytel, the member companies of the Ontario Telecommunications Association.

- (ii) **unaffiliated new entrants**,² *i.e.*, carriers unaffiliated with either an incumbent local exchange carrier (ILEC) or a cable carrier; and
- (iii) **cable carriers**.³

II. DEMAND FOR 700 MHZ SPECTRUM AND TECHNICAL ISSUES

A. General Need for Additional Commercial Mobile Spectrum

4. Every participant, regardless of the group of carriers to which it belongs, has claimed the need for low-frequency spectrum, each for distinct reasons. All parties agree that additional spectrum for mobile broadband is required and that mobile broadband applications and services are likely to grow exponentially in the near-term. Furthermore, each claims that it lacks sufficient spectrum at the present time to meet that need.
5. As a result, no party has come forward to volunteer that it or the group of carriers to which it belongs (small regional carriers, unaffiliated new entrants, cable carriers, or Big Three) does not require 700 MHz spectrum.
6. Indeed, with the exception of very few parties, such as MTS Allstream and Eastlink, many of the current and future market participants appear to advocate positions that are intended to specifically exclude the participation of other groups of carriers.
7. On the one hand, many unaffiliated new entrants would exclude the Big Three and/or all other current holders of 850 MHz spectrum. To do so would hinder those holders' ability not only to deploy rural broadband in their large serving areas, but

² Axia NetMedia Corporation, Barrett Xplore; British Columbia Broadband Association (BCBA), Public Mobile, Canadian Cable Systems Alliance (CCSA), Globalive Wireless Management Corp. (Globalive), Mobilicity, Niagara Networks Inc., Peace Region Internet Society (PRiS).

³ The largest cable carriers, namely Cogeco Cable Inc., Bragg Communications Inc. (Eastlink), Quebecor Media Inc. (Vidéotron), and Shaw Communications Inc. (Shaw).

also to support legacy services for customers, all in the face of increasing spectrum demand.

8. On the other hand, the Big Three (and SaskTel) reject the need for a competitor set-aside notwithstanding that, without a set-aside, smaller carriers may easily be outbid by the Big Three given their enormous access to retained earnings and to capital.
9. Such positions represent all-or-nothing approaches which compromise one, if not both of the objectives⁴ of increased competition and broadband deployment in all regions of the country, as underscored by the Department in the 700 MHz Consultation Document. In contrast with MTS Allstream's proposal, new entrants will have the opportunity they need to continue bringing competition to the Canadian wireless market, without compromising the ability of 850 MHz spectrum holders to deploy rural mobile broadband while also supporting customers on legacy networks.

B. Areas of Widespread Agreement

10. Notwithstanding the divergence between the four main groups of market participants on issues relating to the twin policy objectives of competition and broadband ubiquity, there is near-unanimity on an encouraging number of technical issues:

⁴ Specifically,

“ensuring that Canadian consumers, businesses and public institutions continue to benefit from the availability of new, advanced and affordable telecommunications services in all regions of the country”; and

“encourage[ing] a competitive telecommunications marketplace, as it believes that competition stimulates innovation and investment by the industry, which can lead to lower prices, better services and more choice for consumers, businesses and public sector users.”

- (a) **band plan:** The vast majority of respondents favour the adoption of the US Band Plan, recognising the reality that Canadian operators and consumers co-exist in a North American device ecosystem;
- (b) **guard bands:** The vast majority of respondents who commented on this issue agreed that guard bands should be held in reserve for future use or if the Department decides to licence the 700 MHz guard band spectrum, then any such licensed uses should cease operations if interference is caused to adjacent FDD systems;
- (c) **public safety uses:** Carriers were consistently of the view that the most prudent course, given the adoption of the US Band Plan, would be to await developments and decisions in the US with respect to public safety;
- (d) **transition of LPTV stations:** Parties who commented on this appeared to agree with the Department's proposal to permit low-power devices in the band 698-754 MHz and 776-794 MHz only until 31 March 2012 given that these devices have the ability to impair the proper operation of mobile stations operating in the same area;
- (e) **changes to the Canadian Table of Frequency Allocations (CFTA):** All parties who commented on this issue agreed with the Department's proposed changes to the CFTA, with the proposed spectrum utilization policy, and with the designation of commercial radio systems deployed in the 700 MHz band as Mobile Broadband Systems, where such systems are compliant with the definition of Cellular Mobile Radio Service as defined in RP-14;
- (f) **open access:** Parties either had no comment (unaffiliated new entrants) or were uniformly opposed to specific mandatory measures to define and implement open access policies;

- (g) **auction timing:** No clear consensus emerged but parties fell into one of two camps:
 - (i) holding the 700 MHz auction before the 2500 MHz auction; or
 - (ii) holding a combined 700 MHz and 2500 MHz auction.
11. As well, all, including Industry Canada⁵, agree that the 700 MHz spectrum offers better propagation and building penetration characteristics and can cover great geographic distances at relatively lower cost compared to higher frequency (over 2 GHz) spectrum.⁶ In this regard, the 700 MHz spectrum should be considered *complementary* to high frequency spectrum.⁷

C. Not All Holders of 850 MHz Band Spectrum Are in the Same Position

12. While there was agreement on several purely technical matters, several unaffiliated new entrants⁸ asserted that, given similarities between 850 MHz and 700 MHz spectrum (both being low frequency), holders of 850 MHz should not be allowed to participate in the 700 MHz spectrum auction, whether by way of a competitor set-aside in the entire 700 MHz band or by way of a cap of 0 MHz, because those holders allegedly already have sufficient spectrum for competitive deployment purposes.⁹

⁵ 700 MHz Consultation Document at 2.

⁶ Comments of MTS Allstream at paras. 12-13; see also, e.g., Comments of Bell Mobility Inc. (Bell), 28 February 2011 at paras. 6, 52 and 56; Comments of Rogers Communications Inc. (Rogers) at paras. 16-17; Comments of Vidéotron at para. 88.

⁷ See Comments of MTS Allstream at paras. 12-16; see also, e.g., Comments of Bell Mobility and Comments of Rogers at paras. 53-54.

⁸ Globalive's proposal, implicitly, is that all holders of 850 MHz spectrum should be subject to a spectrum cap of 0 MHz in the 700 MHz spectrum auction (Comments of Globalive, 28 February 2011, at para. 35); Mobilicity and Public Mobile both advocated that all of 700 MHz spectrum be set-aside for new entrants (Comments of Mobilicity, 28 February 2011 at paras. 7, 176, and 183; Comments of Public Mobile Inc., 28 February 2011 at paras. 100 and 112).

⁹ Amongst cable carriers, Shaw and Quebecor on behalf of Vidéotron advocated for an auction cap of 12 MHz (1 paired block) for holders of low frequency (sub-1 MHz) spectrum in any geographic area where the carrier in question holds the sub-1 MHz spectrum licence (Comments of Quebecor Media

13. Given that the unaffiliated new entrants are predominantly focused on the densely populated, urban areas of Canada, it is not surprising that the proposal to block 850 MHz holders from the 700 MHz auction would have the effect of widening the broadband gap and ignore the economic realities of serving rural and remote areas.¹⁰
14. To limit or preclude holders of 850 MHz spectrum from the auction would ignore the fact that there is large scale, unfulfilled demand for broadband of any kind in rural communities, and would also ignore the future needs that carriers will have to support legacy services currently being served using 850 MHz spectrum.
15. As noted by MTS Allstream in its initial Comments in this proceeding:
 - (a) there is latent, unfulfilled demand in rural communities that are currently unserved or underserved by a minimal level of functional broadband access;¹¹
 - (b) high frequency mobile spectrum (greater than 2 GHz), consisting of PCS, AWS, and BRS spectrum is inefficient for rural deployment;
 - (c) no provider that currently holds low-frequency spectrum has sufficient holdings to provide broadband, given existing voice and data uses.¹² In the case of MTS Allstream, its 850 MHz holdings are being used throughout the province for at least one dual UMTS/HSPA carrier channel of 10 MHz (2x5

Inc., 28 February 2011 at paras. 93-97; Comments of Shaw, 28 February 2011, at paras. 12, and 89-92).

¹⁰ See, generally, The SeaBoard Group, *The Woods are Lovely, Dark and Deep: The Case for a Remote-Rural Exception in Frequency Allocation*, 6 April 2011.

¹¹ Comments of MTS Allstream, 28 February 2011 at paras. 7 and 105; see also, generally, Comments of Bell at para. 22; Comments of Axia NetMedia, 28 February 2011 at paras. 4-5; Submission of Scott Simms, MP, 28 February 2011 at 1; Comments of the Government of Alberta (Submission 2), 28 February 2011, at 7; Comments of the Government of Saskatchewan, 28 February 2011, at 1-2.

¹² Comments of MTS Allstream at paras. 8, 12, 13, 18 and 19; see also Comments of Bell Mobility Inc., 28 February 2011 at paras. 21, 23, 52 and 56; Comments of Rogers at paras. 16-17 and 49.

MHz) and one CDMA carrier channel and one EVDO carrier channel of 7.4 MHz (2x3.7 MHz);¹³

- (d) small regional carriers and the Big Three cannot turn off their existing uses in the short or mid-term without stranding large customer bases; and
 - (e) When LTE devices become available for the 850 MHz spectrum band is not certain at this time.¹⁴ What is certain is that the device ecosystem, which is largely driven by the US market,¹⁵ is moving to LTE and LTE in the 700 MHz band will be developed first.
16. Furthermore, and as recognised recently by Industry Canada,¹⁶ the full benefits of LTE will not materialise unless carriers are able to use 10 MHz + 10 MHz in their LTE deployments. While a smaller deployment of LTE (e.g., 5 (or 6) MHz + 5 (or 6) MHz) may be technically feasible, this would not permit a service provider to reach the same number of subscribers *at comparable speeds* to what would be possible in a 10 MHz + 10 MHz deployment. This fact is especially significant when considering the policy implications of limiting parties to 5 MHz + 5 MHz deployments because it is unlikely that such a party will be able to deploy LTE in less densely populated regions of Canada with any degree of scale or scope.
17. In order to achieve meaningful rural broadband, providers will require at least 20 MHz of paired 10 MHz + 10 MHz blocks.

¹³ Comments of MTS Allstream at para. 19; see also Comments of Bell at para. 21; Comments of Rogers, 28 February 2011 at paras. 20 and 58.

¹⁴ Comments of MTS Allstream at paras. 17 and 92; see also Comments of Bell at 117-18; Comments of Rogers at paras. 31-38; Comments of Eastlink at 21.

¹⁵ See, e.g., Comments of Radio Advisory Board of Canada at paras. 5.1.15 and 5.1.20.

¹⁶ 2500 MHz Consultation Document at 33:

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.

18. The present reality, however, is that current holders of 850 MHz spectrum *do not* have sufficient available spectrum in this band to permit a 5 MHz + 5 MHz LTE, let alone a 10 MHz + 10 MHz LTE deployment. In particular, today, throughout its entire territory, MTS Allstream is using 17.4 MHz of its 25 MHz of cellular spectrum. This 17.4 MHz consists of a dual UMTS/HSPA carrier channel of 10MHz (2x5 MHz) and one CDMA carrier channel and one EVDO carrier channel of 7.4 MHz (2x3.7 MHz).¹⁷
19. A conservative estimate of the total minimal spectral requirement for low-frequency spectrum required to maintain MTS Allstream's current CDMA/EVDO and UMTS/HSPA, and add a 10 MHz + 10 MHz LTE capability, is 37.4 MHz.¹⁸ This means that notionally there is only 7.6 MHz of spectrum available, and this only in non-urban areas since MTS Allstream has added carrier channels in urban areas. This notional 7.6 MHz of 850 MHz spectrum is not sufficient for even a limited 5 MHz + 5 MHz limited deployment.
20. Furthermore, current holders of 850 MHz spectrum will also not be able to “free up” existing 850 MHz spectrum in sufficient quantities in the mid- to long-term. For example, MTS Allstream¹⁹ anticipates that there is a need to provide CDMA/EVDO for a minimum of seven to eight years and HSPA for a minimum of ten years.
21. Relegating less densely populated rural areas to LTE or HSPA deployments using higher frequency spectrum holdings (such as AWS or 2500 MHz spectrum) would likely mean that rural areas will once again be left behind, thereby widening the ever-present broadband gap. No carrier can economically use higher-frequency spectrum to blanket their entire territory. With access to high frequency spectrum alone, or to insufficient (5 MHz + 5 MHz) low frequency spectrum, carriers would

¹⁷ See Comments of MTS Allstream at para. 19.

¹⁸ See Comments of MTS Allstream at para. 20.

¹⁹ Bell, TELUS, SaskTel and Rogers are in the same situation. However, Rogers uses GSM and UMTS in its deployments at 850 MHz, instead of CDMA and UMTS.

instead only be able to “dot the map” by selectively choosing only certain less densely populated areas.

22. As a supplier in a province with almost 30 per cent²⁰ of its mobile wireless subscriber base residing in rural areas (which is 10 per cent higher than the national average), MTS Allstream has studied the issue and is intent on deploying mobile wireless broadband services to less densely populated areas of its serving territory. MTS Allstream has always offered the same speeds of mobile data services in rural areas as it has in urban areas, and currently covers approximately 97 to 98 per cent of the province of Manitoba with its CDMA and HSPA services. Furthermore, MTS Allstream serves a greater proportion of residents in rural areas that are more difficult to serve than concentrated urban areas – approximately twice as much as each of the Big Three.²¹

D. Tier Sizes for 700 MHz Auction of Commercial Spectrum

23. The selection of tier size should be driven primarily by considerations related to the promotion of competition and second, the avoidance of unassumed or uncontested licences in certain locations. In this regard, MTS Allstream notes 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.
24. There is a fair degree of consensus for a Tier 3 definition amongst unaffiliated new entrants who have launched in various locations across the country (other than

²⁰ Statistics Canada, “Population, urban and rural, by province and territory”, online: <<http://www40.statcan.ca/101/cst01/demo62h-eng.htm>>

²¹ The SeaBoard Group, *The Woods are Lovely, Dark and Deep: The Case for a Remote-Rural Exception in Frequency Allocation*, 6 April 2011, Exhibit 3. See also Exhibit 6.

Vidéotron, which prefers Tier 2). In light of the foregoing, MTS Allstream reiterates the following recommendations:

- (a) **Tier 2** definition in the most highly-contested or desirable of the blocks in the 700 MHz band (*i.e.*, the Lower B and Lower C) blocks with an associated rural deployment condition; and
 - (b) for all blocks other than the Lower B and Lower C blocks, a **Tier 3** definition and no rural deployment condition.²²
25. A large number of smaller carriers²³ as well as certain municipalities²⁴ and associations advocated for a “rural set-aside”. In actuality this is a proposal to redefine the tiers across the 700 MHz band or in certain blocks thereof to provide for pure rural licences and pure urban licences. For example, Barrett proposed a variety of Tier 2, 3, and 4 blocks, and in the case of Tier 4 blocks, proposed that the rural component of these blocks be unbundled in order to separate the urban core from rural areas.
26. As noted by the Department in its recent framework decision for spectrum auctions in Canada, “modifying existing tier areas is very problematic without reference to a particular band. The creation of urban versus rural areas could increase coordination complexity, which may reduce the overall social and economic benefits.”²⁵ On the other hand, the Department indicated that where compelling evidence was provided that if the introduction of an alternative tier is “socially desirable as well as economically and technically feasible” for a specific auction/band, then Industry Canada would consider establishing such a tier.

²² Comments of MTS Allstream at paras. ES 16. (c), (d), (e) and (f) and 49.

²³ See, *e.g.*, Comments of Axia Netmedia, 28 February 2011 at paras. 14-17; Comments of Barrett Inc., 28 February 2011 at para. 103; Comments of Tbaytel, 28 February 2011 at 6.

²⁴ Comments of Government of Alberta (Rural Broadband), 28 February 2011 at 3 and 7.

²⁵ 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.

27. In the case of the 700 MHz band, creating, in the absence of specific, workable proposals, a further number of rural versus urban tiers will certainly give rise to the complexity, administrative burden and coordination headaches foreseen by the Department in its *Framework for Spectrum Auctions* document. Given these reductions in overall social and economic benefits, the Department must be provided with compelling evidence that there is a clear social or economic benefit that will result from the creation of rural licences. This social and economic benefit is clearly not in evidence. 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.
28. Moreover, as noted by the Department,²⁶ there are far less complex and burdensome ways to achieve rural broadband deployment:
- (a) transfer, subdivision, or subordinate licensing in the secondary market;
 - (b) the formation of bidding consortiums within the auction process itself;
 - (c) an application for spectrum areas where competitive cellular service is not provided, via the process set out in *Policy for the Provision of Cellular Services by New Parties* (RP-019); and
 - (d) use of unlicensed spectrum in the 3650 MHz band.
29. Tier size definition alone is unlikely to result in achievement of the twin policy objectives of competition and broadband ubiquity. Dividing up tiers into rural and urban areas would be resource-intensive, and while it may provide greater incentive for smaller players to bid on a greater number of licences, it would do little to meaningfully promote bidding on licences for rural areas. In the absence of specific

²⁶ 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.

regulatory intervention, licensing only large geographic areas would disincite new entrants and would not, of itself, rectify the urban-rural imbalance.

III. RURAL COMMITMENTS

30. Just as no clear consensus emerged on the question of tier sizes, the issue of rural deployment commitment also failed to attract clear consensus. Rather, the positions adopted by the parties seemed to depend mostly on the individual business plan of the party in question. Thus, companies as disparate in size, history, and geographic scope as the Bell Companies, Globalive, Mobilicity, Public Mobile, Eastlink, Cogeco, Shaw, Barrett²⁷ and the British Columbia Broadband Association²⁸ all managed to agree that no rural deployment commitment was required, or were silent on the issue. Uniting all of these parties was the view that there is no rural broadband problem or that the problem would address itself either through market forces or the manipulation of tier sizes.
31. On the other hand, a significant number of parties²⁹ advocated a so-called “use it or lose it” rule, whereby if spectrum acquired in the auctions was not deployed within a certain number of years (ranging from three to five years), the licence would be forfeit. These parties clearly espoused the Department’s policy objective of making mobile broadband services available in all regions of Canada and believed that some type of mandatory obligation was required to achieve that objective over and above tier sizing and the adoption of other geographic definitions.

²⁷ Barrett requested a complex scheme - setting aside of two to four blocks of 700 MHz spectrum such that entities with 50 MHz or more of commercial mobile wireless spectrum (including BRS) would not be eligible to bid on the rural portions of the unbundled Tier 4 blocks - but did not recommend the imposition of a rural deployment commitment by way of condition of licence.

²⁸ The BCBA recommended a set-aside of at least 50 per cent of the 700 MHz spectrum in the 165 least-populated Tier 4 service areas but on the other hand, did not recommend the imposition of a rural deployment commitment by way of condition of licence.

²⁹ Canadian Association of Community Television Users and Stations; Canadian Media Guild; Public Interest Advocacy Centre; Interdepartmental Committee on Search and Rescue; Public Safety Canada; RCMP; Government of Saskatchewan; Government of British Columbia; Government of Ontario; Government of Yukon; and Matthew Gadiant, Brendan Howley, and Steven May.

32. For those market participants that *both* (i) supported a binding condition of licence imposing a rural commitment and (ii) made specific recommendations as to objective criteria to be adopted, the various positions may be summarised as follows:
- (a) Rural deployment attached to a specific block of 700 MHz spectrum licensed on a Tier 2 basis:
 - (i) MTS Allstream – Lower B and Lower C blocks (24 MHz in total) and for purposes of calculating the population covered, only non-CMA population should be counted; and
 - (ii) SaskTel – 90 per cent coverage within five years of Upper C block (22 MHz in total);
 - (iii) Vidéotron – between 20 and 50 per cent of population, depending on Province (as per Annex 2 of the AWS Policy Framework document);³⁰
 - (b) Rural deployment to certain per cent of population of each Tier 3 area within “reasonable” time post-licensing for all licences:
 - (i) Rogers (unspecified percentage and time period); and
 - (ii) TELUS (50 per cent of population within three years of licence issuance).
33. Having reviewed the divergent and varied submissions of the parties, MTS Allstream considers that if the Department is truly committed to achieving rural broadband, then it is prudent and necessary to mandate roll-out commitments. Moreover, it considers that such a condition of licence should:

³⁰ Vidéotron, Initial Comments, paras. 116-17.

- (a) be attached to the most “desirable” or attractive blocks of spectrum, which will have the greatest potential to attract all manner of bidders, including unaffiliated new entrants;
- (b) be attached to blocks with a tier definition that will not result in any “gaps” or “holes” in licence take-up, such that all regions of the country will be blanketed by at least one licensee with a rural commitment; and
- (c) be objectively defined both in temporal and geographic terms as to truly effect broadband mobile deployment in *rural* areas.

Not all carriers can yet deliver on a rural commitment

34. Regarding MTS Allstream’s recommendation that the rural commitment be attached to specific blocks, rather than throughout the commercial 700 MHz band, it appears unrealistic to mandate a rural roll-out commitment on each and every block of spectrum given that not all carriers are positioned to deliver on such commitments. MTS Allstream notes that to date the unaffiliated new entrants that entered the mobile wireless market as a result of the AWS auction were successful in obtaining licences across the country but have not deployed in smaller *urban* centres, such as Winnipeg, Regina or Saskatoon, let alone in small regional centres, such as Brandon in Manitoba and Thunder Bay in Ontario, or in rural parts of the county.
35. Even the cable carriers, with their relatively superior ability to access capital, were silent or recommended only very weak measures. The foregoing demonstrates that there are few market participants that envisage non-urban deployment as part of their short to mid-term business plans. As a result, one should conclude that recommendations to spread a rural broadband commitment through the entire commercial 700 MHz band are overtly designed to do nothing more than to hamstring potential new entrants, and not to achieve mobile broadband in all regions of the country.

36. As for the specific blocks of spectrum identified by MTS Allstream as candidates for a rural deployment commitment, it is not disputed that the Lower B and C block of the 700 MHz band is the most prized spectrum. This is the case by virtue of the fact that AT&T - the US carrier with the most extensive commercial roaming arrangements with existing Canadian wireless carriers - is licensed south of the border in the Lower B and C blocks. The Lower B and C blocks are the most desirable blocks of the 700 MHz band. Second-best are the paired Upper C blocks (recommended for the rural broadband commitment by SaskTel).

37. Regarding the question of whether the blocks identified as comporting a rural commitment should be auctioned on the basis of Tier 2 or Tier 3 areas, MTS Allstream assumes that the policy objective is to ensure that there is at least one provider that will deploy in each region of Canada and that what must be avoided at all costs are regional gaps where no provider is committed to deploying broadband. Assuming that this is the goal, auctioning the Lower B and C blocks (or whatever blocks are identified as comporting a rural commitment condition of licence) on a Tier 2 basis will ensure that the goal of universal coverage, without gaps, will be addressed. In contrast,
 - (a) auctioning the rural commitment blocks on a Tier 3 basis is very or more likely to lead to gaps in coverage; and
 - (b) severing the rural portions of Tier 2 or Tier 3 geographic areas (as suggested by certain respondents in their initial Comments) will certainly result in gaps where no provider will take up licences across wide geographic expanses of the country.

38. The ultimate issue to be addressed is the definition of the rural commitment condition of licence that will ensure that broadband deployment becomes a reality in less densely populated regions of Canada. MTS Allstream notes that certain parties, such as Vidéotron and TELUS, have suggested that even though licences

would be issued on a Tier 2 basis, the rural broadband commitment should be assessed on the basis of each Tier 3 area within the Tier 2 licence area.

39. Historically, coverage requirements expressed as broad percentage coverage of overall Tier 2 or even Tier 3 areas by population did not necessarily amount to a meaningful rural deployment. Given the concentration of the Canadian population in urban centres, deployment conditions expressed as 50 per cent coverage by population of the overall Tier 2 area meant that this commitment could easily be met by covering the urban areas in each Tier 2 area. Taking Manitoba as an example, *even if the broad 50 per cent coverage requirement is assessed on a Tier 3 basis, it would not amount to effective rural deployment.*
40. SaskTel has suggested that the coverage requirement be increased to 90 per cent of each Tier 2 area. While this improves somewhat on the historical 50 per cent coverage requirement, in MTS Allstream's view, this type of definition still leaves open the possibility that deployment commitments will fall short of reaching *each* rural area in a given Tier 2 or Tier 3 licence area.
41. In its initial comments, MTS Allstream suggested that one way to achieve meaningful rural coverage is to exclude urban areas from the calculation of the commitment - *i.e.*, that the commitment be expressed as a percentage coverage requirement the calculation of which would exclude Census Metropolitan Areas (CMAs). However, excluding CMAs alone will not equate with meaningful rural deployment. MTS Allstream recommends that the Department attach a roll-out condition that within 5 years of licence issuance, licensees of Lower B and C blocks be required to make mobile wireless broadband data services (at speeds comparable to speeds available in urban centres) available to at *least 80 per cent of the population of each Tier 4 area within the licensed Tier 2 area.*

42. As a result, with respect to attaching a rural deployment condition of licence, MTS Allstream recommends as follows:
- (a) Lower B and C spectrum blocks should be licensed on a Tier 2 basis in order to eliminate the possibility of geographic gaps;
 - (b) Lower B and C spectrum blocks should be subject to a specific roll-out commitment by way of a condition of licence;
 - (c) the condition of licence attached to Lower B and C spectrum blocks should provide that within 5 years of licence issuance, licensees are required to make mobile wireless broadband data services (at speeds comparable to speeds available in urban centres) available to at least 80 per cent of the population of each Tier 4 area within the Tier 2 licensed area.

IV. PROMOTING COMPETITION

A. Parties' Responses Regarding State of Competition

43. A significant majority of respondents to the 700 MHz Consultation Document noted that while the pro-competitive measures undertaken during the AWS auction have borne some fruit, they have to date been limited. The Big Three's submissions in response to the Department's questions about the state of competitiveness of the national market stand in stark contrast to those of the rest of the field, with highly exaggerated, hyperbolic claims of "sea changes" and "hyper-competitive markets". While there is certainly general agreement that some progress has been made since the time of the AWS auction, competition is only beginning to emerge and there is considerable room for improvement.

44. In this debate, MTS Allstream assumes for purposes of this Reply, that the Department will look at the evidence concerning the realities of the marketplace and conclude, without any doubt, that specific regulatory measures are still required.
45. MTS Allstream will focus on two principal points that underline the continued need for specific regulatory measures in the 700 MHz spectrum band:
 - (a) relative access to capital continues to be a relevant criterion for acquisition of mobile wireless spectrum where the asset being sought is finite, and failure to acquire it generally bars entry to or expansion within the market; and
 - (b) this enduring and principal barrier to entry will persist even if the foreign ownership restrictions are lifted.

B. Access to Capital and Acquisition of Spectrum

46. Over the past number of years, the Department has adopted an auction model for allocating spectrum where the expected demand for spectrum in a given band exceeds supply. This has generated significant revenues and has the added benefit of allocating a scarce public resource based on the economic value of that resource as dictated by market power.
47. In an auction model where all bidders have unrestricted access to licences on a national basis, it is trite to observe that the largest bidders, with the largest pre-existing revenues and predictable cash flows, will be able to generate the most capital to vie for scarce spectrum resources.
48. The Big Three are established national mobile wireless service providers who enjoy dominant positions in virtually every sector of the Canadian telecommunications industry in which they operate. Their dominant market positions can be attributed to the fact that each was granted valuable wireline or cable television monopolies in

the last century in the most densely populated provinces of the country (Ontario, Québec, British Columbia and Alberta). As well, roughly twenty-five years ago, each was also granted valuable cellular licences to serve nationally and/or in the most populous areas of the country. Based on their considerable franchises, it comes as no surprise that in the mobile wireless market, they are many times larger than their nearest rivals.³¹ As of year-end 2010, for instance, the Big Three collectively served over 23 million mobile wireless subscribers in Canada, with the smallest of the three (TELUS) alone serving 7 million subscribers.³²

49. In marked contrast, their rivals *collectively* served roughly 1.5 million subscribers. MTS Allstream, for its part, accounted for less than one third of the latter figure (484,000), whereas unaffiliated and cable company entrants are estimated to have collectively surpassed 500,000 subscribers as of year-end 2010 – thereby eclipsing MTS Allstream in scale.³³
50. Broadening the picture, as of year-end 2010, the Big Three collectively served over 44 million customer connections (*i.e.*, wireless, wireline, Internet and video subscribers), with the smallest of three serving well over 12 million customer connections alone. Only Shaw and Vidéotron come anywhere close in scale to the Big Three on this basis, with roughly 6.2 and 4.3 million customer connections, respectively. Both MTS Allstream and SaskTel have fewer than 2 million customer connections – meaning that each of them is six times smaller than the smallest of the Big Three. Considering customer connections for instance, MTS Allstream is less than half the scale of Vidéotron and less than one third the scale of Shaw. Left to the pure, untrammelled, operation of “market forces”, therefore, it is clear that

³¹ *I.e.*, where rivals include unaffiliated new entrants (WIND Mobile, Mobilicity and Public Mobile), cable company affiliated new entrants (Vidéotron, Shaw and Eastlink) and smaller regional players (including MTS Allstream and SaskTel).

³² All figures in this paragraph are based on public financial reports for 4th quarter 2010 and, in the case of WIND Mobile, Mobilicity and Public Mobile (are estimated to collectively serve 400,000 subscribers of year-end 2010) RBC Capital Markets Equity Research, 3 February 2011.

given their overwhelming scale and market dominance, the Big Three and certain cable carriers would have more power in an auction than smaller regional players.

51. Although not universally espoused even amongst new entrants (see for example Eastlink and Vidéotron, which do not advocate total exclusion of 850 MHz spectrum holders), the view of certain new entrants seems to be that all holders of 850 MHz spectrum are created alike and should therefore be precluded from bidding on 700 MHz spectrum. In their initial Comments, these parties appear to have overlooked the fact that the anticipated auctions in the 700 and 2500 MHz bands will allocate spectrum across the country and that absent specific regulatory measures, all of the spectrum will be available to all bidders across the country. Thus, the fact that a small regional carrier may hold 850 MHz spectrum provides absolutely no advantage in an open auction against the Big Three and even the large cable carriers, with vastly superior relative access to capital.
52. Moreover, at root, the justification underlying the contention of certain new entrants appears to be that holders of 850 MHz spectrum hold enough low-frequency spectrum to deploy IMT-Advanced services. However, as discussed above in Part II, there is insufficient 850 MHz spectrum available to achieve even a limited 5 MHz + 5 MHz deployment of LTE, and this will be the case for the next ten years at least. Without 10 MHz + 10 MHz of paired spectrum in the 700 MHz auction, province-wide LTE deployment will be less efficient from an economic and network perspective.
53. In addition, as shown in Table 1 below, within the province of Manitoba itself, MTS Allstream holds less than one quarter of all currently assigned commercial mobile spectrum (*i.e.*, cellular, PCS, AWS and BRS):

³³ SaskTel's year-end 2010 mobile subscriber count has not yet been publicly released, but as of year-end 2009, it had roughly 550,000 subscribers.

- (a) Rogers is by far the largest holder of commercial mobile spectrum in the province, with a spectrum share of close to 40 per cent;
- (b) TELUS and Rogers each hold more PCS spectrum than MTS Allstream in the province;
- (c) MTS Allstream holds less than 25 per cent of all licensed AWS spectrum in the province of Manitoba (approximately 1 per cent, nationally³⁴); and
- (d) with respect to BRS spectrum:
 - (i) Rogers and Bell, through Inukshuk, hold 60 MHz of BRS spectrum in total in the province, 40 MHz of paired spectrum (20 MHz + 20 MHz) as well as 20 MHz of unpaired spectrum; and
 - (ii) MTS Allstream holds no BRS.

Table 1
Commercial Mobile Spectrum Holdings

	Cellular	PCS	AWS	BRS	Total	Share
Rogers	25	50	20	30	125	39%
MTS Allstream	25	30	20	n/a	75	23%
TELUS	n/a	40	20	n/a	60	19%
Shaw	n/a	n/a	20	n/a	20	6%
Globalive	n/a	n/a	10	n/a	10	3%
Bell	n/a	n/a	n/a	30	30	9%
Total	50	120	90	60	320	100%

Source: Industry Canada, SMSE-018-1

54. It is clear that MTS Allstream and other smaller regional carriers are not in the same league as the Big Three – treating smaller regional carriers as if they were in the same league is inconsistent with market realities.

³⁴ 700 MHz Consultation Paper at 8.

55. In assessing who should be eligible to benefit from the specific regulatory measures that the Department will adopt in the 700 MHz and 2500 MHz auctions, MTS Allstream recommends that the Department adopt the criterion of “less than 10 per cent of the national mobile wireless market by revenues”, as developed and used in the AWS auction.³⁵ This definition is consistent with the underlying barrier to entry that the Department is trying to address, namely the relative competitive disadvantage that all smaller players face in vying for scarce spectrum in a public auction process. It also has the merit of being consistent with the Government’s overall approach to assessing market power in the telecommunications market place, as illustrated by the criteria used by the Government in its Option 2 proposal for the graduated lifting of the foreign ownership restrictions. Finally, certain parties have suggested tinkering with the market share percentage to reduce it to 5 per cent or 3 per cent of national market share, the reality is that the Big Three are so much larger than the rest of the field that this type of tinkering serves no real purpose. As suggested by other parties, specific regulatory measures to promote competition should be reserved to those holding less than 10 per cent of the national mobile wireless market by revenue.

C. Foreign Ownership Restrictions and the Need for Specific Regulatory Measures

56. With few exceptions, all of the market participants were virtually unanimous in their agreement that while lifting the foreign ownership restrictions would be helpful, that alone would not be sufficient to promote sustainable competition.

57. Under Option 2 of the Government’s three options, where the foreign ownership restrictions would initially be lifted for new entrants including smaller regional players with less than 10 per cent national market share by revenue, there would still be a great need for specific regulatory measures to promote competition in the

³⁵ Industry Canada, *Policy Framework for the Auction of Spectrum Licences for Advanced Wireless*

upcoming 700 MHz and 2500 MHz auctions. Under Option 2 and assuming that the restrictions are lifted in time prior to the holding of an auction, while small players would see their access to capital enhanced to some degree, this effect will not serve to completely level the playing field. The levelling of the playing field will only occur with the passage of time, as the new entrants grow and gain share in the marketplace. Therefore, for purposes of the 700 MHz and 2500 MHz auctions to be held within the next one to three years, specific regulatory measures to promote competition will still be required.

58. Under Option 3, where the foreign ownership restrictions are lifted at the same time for all market participants, including the Big Three, the Big Three's relative access to foreign capital would be enhanced to a *greater* degree than for new entrants. Under this scenario, too, there would be greater need for specific regulatory measures to promote competition, and in particular, measures to enhance the ability of small market participants to acquire scarce spectrum with some protection from the clear incentive of the Big Three to acquire all available spectrum in order to preclude market entry and competition.

V. SPECIFIC MECHANISMS APPLICABLE TO THE 700 MHZ AND 2500 MHZ AUCTIONS

A. Set-Aside in the 700 MHz Spectrum Band

59. In its initial Comments, MTS Allstream proposed a competitor set-aside in the Upper C block of a total of 22 MHz of contiguous spectrum, where this block would be auctioned and licensed on a Tier 3 basis and where eligibility to bid on the set-aside spectrum is based on annual mobile wireless revenues of such bidder being less than 10 per cent of the national mobile wireless market. After reviewing the submissions of other parties, MTS Allstream continues to recommend a competitor

- set-aside as the principal measure that the Department should implement in order to promote competition in mobile wireless services across the country.
60. The purpose of a spectrum set-aside is to promote a competitive marketplace for mobile wireless services, not to prevent other players from participating. This design should balance the objective of promoting a competitive marketplace to the maximum extent possible with the pursuit of other policy objectives, including promoting the deployment of advanced wireless services in all regions of Canada.
 61. Not surprisingly, the Big Three are generally opposed to a competitor set-aside, and stipulated that if there is a competitor set-aside, new entrants must be forced into the set-aside blocks. In other words, their alternative proposal would essentially have the effect of creating a “Big Three set-aside”. This would subvert the very purpose of the new entrant set-aside, which is to prevent the Big Three from using their market and financial power to thwart competition by buying all of the remaining spectrum.
 62. Unaffiliated new entrants that have AWS spectrum (Globalive, Mobilicity, and Public Mobile) advocate reservation of the entire 700 MHz spectrum block for “new entrants,” which they define as any party that does not currently hold cellular spectrum. Whether unaffiliated new entrants holding AWS spectrum characterise this preclusive rule as a set-aside or a spectrum cap, the effect is the same – total exclusion of current holders of 850 MHz spectrum.
 63. The primary assumption upon which this extreme position is based appears to be a misguided understanding that with their current 850 MHz holdings, all current holders of 850 MHz spectrum have sufficient available spectrum to deploy LTE. This is patently false, as discussed in detail above.

64. In both instances, parties are missing the reason for implementing specific measures, which is to promote, not preclude, competition.
65. Other unaffiliated new entrants advocate set-asides of between 25 per cent and 50 per cent of the available commercial spectrum for new entrant (as defined by reference to national wireless revenues) use. In MTS Allstream's view, the minimum amount of spectrum that should be set aside is 20 MHz of spectrum, suitable for an efficient deployment using 10 MHz + 10MHz. However, to the extent that certain new entrants (excluding MTS Allstream, for one) are primarily focussed on urban centres, it is conceivable that it would be economically and practically efficient to deploy LTE or other advanced services using 5 MHz + 5 MHz. It would be possible to set aside the contiguous 22 MHz in the Upper C block as well as other non-contiguous paired blocks in order to promote further competitive entry.
66. In addition, the Upper C block could be split, as suggested by some, in order to make available another paired block of spectrum in the 700 MHz band. However, all other aspects of the set-aside – that the set-aside blocks would not be subject to a rural deployment condition; that it would be auctioned and licensed on a Tier 3 level; and where eligibility to bid on the set-aside blocks is based on less than 10 percent share of annual mobile wireless revenues – would remain as per MTS Allstream's original proposal.

B. Spectrum Caps

67. A number of parties have proposed *auction caps* as an alternative to use of a spectrum set-aside (few if any parties proposed an overall spectrum cap as an effective measure). A cap serves a fundamentally different purpose from a spectrum set-aside in that it merely limits the capped parties' incentive to acquire all available spectrum, without necessarily promoting the capacity of new entrants to bid on available spectrum.

68. In the 700 MHz band, an auction cap is an imperfect tool due to the practical exigencies associated with the deployment of IMT-Advanced services and the paucity of paired spectrum under the US Band Plan.

C. Post-Auction Market Structure

69. MTS Allstream agrees with several new entrants that the market will still require regulation of access to essential tower infrastructure and other measures to guard against erosion of the limited degree of competition in the market for mobile wireless services.

VI. AUCTION TIMING

70. Amongst existing or prospective licensees, parties were generally evenly split between two camps with respect to the question of the timing of the 700 MHz band and the 2500 MHz band auctions, with no discernibly predictable alignment between the various groups, namely the Big Three, the cable carriers, the unaffiliated new entrants and the small regional carriers. For example,
- (a) Proponents of the holding of the 700 MHz auction **before** the 2500 MHz auction included MTSA, Mobilicity, SSI Micro Ltd., Eastlink, Shaw, and Bell; and
 - (b) Conversely, proponents of the holding of a **combined** 700 MHz and 2500 MHz auction included Sasktel, Axia NetMedia, Barrett, Niagara Networks, Public Mobile, Globalive, Vidéotron, and Rogers.³⁶

³⁶ TELUS was the sole proponent of the holding of the 2500 MHz auction before the 700 MHz auction. Its principal ground for doing so was seemingly to level the playing field with the other two Big Three, Rogers, and Bell, who already hold 2500 MHz spectrum. TELUS' fall-back position was to hold a combined auction.

- (c) TELUS was the sole proponent of the holding of the 2500 MHz auction before the 700 MHz auction. Its principal ground for doing so seemed to relate to levelling the playing field between it and Rogers and Bell, who already hold 2500 MHz spectrum, which is of questionable priority from a policy perspective. TELUS' alternative position is to hold a combined auction.
71. As stated herein and by many parties in this proceeding, there is a pressing, and growing need for additional spectrum for the deployment of higher bandwidth mobile data services. This need is particularly acute in less densely populated areas, where average bandwidth per subscriber is roughly double the average bandwidth per subscriber in urban areas.³⁷ Second, unlike the 2500 MHz band, there is currently, and will likely be for the foreseeable future, a sustainable device ecosystem in the 700 MHz band for mobile broadband data applications, given that both AT&T and Verizon were successful bidders in the recent 700 MHz spectrum.
72. The Department, in considering measures to allow new entrants to sustainably continue to challenge the dominance of the Big Three, should sequence the auctions such that the smaller players have enough time to (i) deploy whatever 700 MHz spectrum they purchase; and (ii) raise sufficient funding in between the two auctions to participate meaningfully in the 2500 MHz spectrum. 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 700 MHz and 2500 MHz auctions, the less of a head start the Big Three and deeper-pocketed carriers will enjoy in the auctions.
73. MTS Allstream, therefore, supports holding the 700 MHz spectrum auction first, for the reasons stated above and by other parties.

³⁷ Comments of MTS Allstream at paras. 11 and 16 and Table 1 of its confidential Appendix "A".

VII. CONCLUSION AND SUMMARY OF RECOMMENDATIONS

74. The 700 MHz auction represents a further opportunity for the Department to advance the long-term objective of encouraging a competitive telecommunications marketplace which stimulates innovation and investment by the industry, which can lead to lower prices, better services and more choices for consumers, businesses and public sector users.³⁸ At the same time, the 700 MHz spectrum band is uniquely suited to the provision of broadband wireless services to less densely populated regions. Simultaneously achieving the twin policy objectives, within the constraints posed by band planning issues and the North American device ecosystem in which the Canadian market exists, requires a fine balancing of priorities and interests.
75. On the policy issues where the parties have diverged most, MTS Allstream believes that its recommendations achieve an appropriate balance between the overarching twin policy objectives being pursued by the Department. In MTS Allstream's submission, the immediate priority should be the lifting of the foreign investment restrictions prior to the 700 MHz auction. In addition, MTS Allstream has proposed other specific policy measures, as follows:
- (a) adoption of a Tier 2 definition in the most highly-contested or desirable of the blocks in the 700 MHz band (*i.e.*, the Lower B and Lower C) blocks with an associated rural deployment condition;
 - (b) for all blocks other than the Lower B and C blocks, adoption of a Tier 3 definition and no rural deployment condition;
 - (c) the condition of licence attached to Lower B and C spectrum blocks (licensed on a Tier 2 area basis) will provide that within 5 years of licence issuance, licensees are required to make mobile wireless broadband data services (at

- speeds comparable to speeds available in urban centres) available to at least 80 per cent of the population of each Tier 4 area within the licensed Tier 2 area;
- (d) for purposes of establishing the criteria for eligibility for any specific pro-competitive measures implemented by the Department in the 700 MHz and 2500 MHz auctions, the Department should adopt the criterion developed and used in the AWS auction, namely that all bidders with less than 10 per cent of the annual national mobile wireless market revenues should be eligible for any such measures;
 - (e) irrespective of the lifting of foreign investment restrictions under the Government's Options 2 or 3, specific regulatory measures will still need to be undertaken in order to ensure access to sufficient quantities and quality of spectrum, particularly in the low frequency 700 MHz spectrum band;
 - (f) the Upper C block of a total of 22 MHz of contiguous spectrum should be set aside for exclusive bidding by smaller carriers or so-called "new entrants" meeting the eligibility criteria outlined above (auctioned and licensed on a Tier 3 area basis);
 - (g) in addition to instituting a competitor set-aside in the Upper C block, splitting the Upper C block in order to make available another paired block of spectrum in the 700 MHz band;
 - (h) non-set-aside blocks should be open to bidding by all parties, without restriction;
 - (i) limitation on transfer of licences for set-aside spectrum to parties not meeting the eligibility criterion to bid on the set-aside blocks for ten years post-issuance of the licence; and

- (j) continuation of the existing conditions of licence regarding mandatory roaming and tower/site sharing.

* * * End of Document * * *