

Canada Gazette Notice No. SMSE-005-11

**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**

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**Reply Comments
of
Bell Mobility Inc.**

16 May 2011

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1.0 EXECUTIVE SUMMARY

1. Bell Mobility Inc. (Bell Mobility) is pleased to submit the following reply comments in response to the Department's Consultation regarding *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* – Notice No. SMSE-005-11, as published in the *Canada Gazette* Part 1, 12 February 2011 (the Consultation). For the reasons outlined in these reply comments, Bell Mobility continues to maintain the positions and recommendations presented in our 19 April 2011 submission. The following summarizes Bell Mobility's position:

- There should be no spectrum set-asides, aggregation limits (caps) or other concessions as part of the 2500 MHz auction;
- There should be 5 + 5 MHz blocks for FDD-based paired spectrum, and 10 MHz blocks for TDD-based unpaired spectrum, and the block sizes should be consistent across all regions;
- Licensing of 2500 MHz spectrum should be based on Tier 3 service areas across all spectrum blocks; and
- There is no need for specific measures, such as roll-out requirements, within the 2500 MHz spectrum auction process in order to ensure further deployment of BRS spectrum in rural and remote areas.

2. In the following reply comments, Bell Mobility will address the issues in the order of their appearance in the Consultation Document.

2.0 SPECTRUM PACKAGING FOR LICENSING

2.1 Block Sizes

3. The Consultation sought parties' views on the appropriate block size to be auctioned. Bell Mobility proposed that the block sizes be the same in all geographic regions discussed in Appendix A of the Consultation Paper, but that different block sizes should be used for FDD-based paired spectrum and TDD-based unpaired spectrum. Bell Mobility agrees with Research In Motion, that having larger contiguous blocks of spectrum increases the efficiency of next generation mobile technologies and that bidders must be required to have contiguous

assignments in order to create wider blocks.¹ However, Bell Mobility remains of the view that a 5 + 5 MHz block size for FDD-based paired spectrum will allow for more operators to acquire spectrum, and at the same time allow bidders the flexibility to assemble blocks into larger blocks of contiguous spectrum if so desired in order to support their business plans.

4. This view was supported by a number of parties.² For example, Niagara Networks notes that a 5 + 5 MHz block size accommodates the business plans of the widest number of bidders, by allowing them to combine blocks into whatever sizes that are most desirable.³ The benefit of the flexibility to aggregate block sizes based on business needs was also noted by Rogers:

The flexibility inherent in Rogers' proposed approach would allow market forces to determine the optimal block sizes since it would permit bidders to bid for the quantity of spectrum required to support their business plans. Premium service, broadband operators would be permitted to assemble larger blocks, while pure play voice and text operators would have the option of acquiring smaller blocks. In a market comprised of operators with different business plans and where mobile broadband traffic is growing exponentially each year, it is the operators, not the Department, that are in the best position to determine the most appropriate block sizes that are required to satisfy ongoing demand.⁴

5. With respect to TDD-based unpaired spectrum, Bell Mobility does not support the recommendations that the block size should be 5 MHz.⁵ Given that network operators can use TDD spectrum with either LTE or WiMAX technologies, guardbands may be required in order to reduce problems of interference. As a result, if there are small block sizes, and multiple operators, the need for guardbands will compromise the efficient use of the TDD-based spectrum. Therefore, Bell Mobility remains of the view, which is supported by numerous other

¹ Research In Motion Ltd., Comments of Research In Motion Limited to *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*, paragraphs 7 and 11.

² Huawei Canada, Comments to *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*, page 3; Radio Advisory Board of Canada, Comments to *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*, paragraph 3.6; Rogers Communications Partnership, Comments to *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*, paragraph 9; SaskTel, Comments to *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*, paragraph 5; SSi Micro Ltd., Response to *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*, paragraph 22; and TELUS Communications Company, Response to *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*, paragraph 40.

³ Niagara Networks, Comments to *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*, paragraph 2.

⁴ Rogers Communications Partnership, paragraph 25.

⁵ Niagara Networks, paragraph 1; Rogers Communications Partnership, paragraph 9; and SaskTel, paragraph 6.

parties,⁶ that the block size for TDD-based unpaired spectrum block sizes should be 10 MHz, and that the 5 MHz "restricted bands" at 2570 – 2575 MHz and 2615 – 2620 MHz be added to the adjacent allocated TDD blocks above 2575 MHz and below 2615 MHz.

6. Furthermore, in order to help facilitate the efficient use of 2500 MHz spectrum, Bell Mobility continues to recommend that the Department have a policy as part of the 2500 MHz spectrum auction framework that allows for the creation of contiguous spectrum blocks consisting of newly licensed and previously licensed BRS spectrum (if necessary). By ensuring that all BRS spectrum license holders have contiguous spectrum, the Department will increase the likelihood that the 2500 MHz spectrum band will be used as efficiently as possible.

2.2 Tier Sizes for BRS Spectrum

7. The Consultation also sought views regarding the appropriate tier size. Bell Mobility continues to recommend that the Department should license the 2500 MHz spectrum on the basis of Tier 3 service areas. A number of parties recommended that the Department adopt Tier 2 service areas.⁷ While it is true that larger geographic areas allow for fewer neighbouring service providers and thus less coordination problems, given the propagation properties of 2500 MHz spectrum, this should be less of a problem than with lower frequency spectrum bands. This view is also supported by EastLink which argued:

EastLink proposes that the 2500 MHz spectrum be auctioned using Tier 3 areas. It does not make sense to consider larger tier sizes because of the propagation characteristics of the 2500 MHz spectrum. The Department recognized this in the conversion of MCS and MDS authorizations to BRS spectrum licences, which were converted based on Tier 3 sizes, except for Inukshuk's licence and SSI's MCS licence, which used Tier 4 sizes.⁸

⁶ Barrett Xplore Inc., Comments to *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*, paragraph 43; Huawei Canada, page 3; MTS Allstream Comments to *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*, paragraph ES3, Radio Advisory Board of Canada, paragraph 3.6; SSI Micro Ltd., paragraph 22; and TELUS Communications Company, paragraph 41.

⁷ MTS Allstream, paragraph ES6; Niagara Networks, paragraphs 4 and 5; Public Mobile Inc., Comments to *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*, pages 5 and 6; Quebecor Media Inc., Submission to *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*, paragraph 24; Shaw Communications Inc., Comments to *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*, paragraph 36; and TELUS Communications Company, paragraph 49.

⁸ EastLink, Comments to *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*, paragraph 26.

8. Bell Mobility agrees with Rogers that "the use of larger Tier 2 areas could force incumbent licensees to acquire spectrum across a larger geographic area than they actually require to satisfy their business plans,"⁹ and that "this would needlessly increase their cost and deny the spectrum to other bidders."¹⁰ The use of Tier 3 service areas will avoid this problem, yet at the same time provide network operators the ability to aggregate smaller service areas into larger ones.

9. Some respondents recommended the use of Tier 4 service areas.¹¹ Bell Mobility does not support this, and agrees with SaskTel that "using smaller tier sizes could result in fractured service areas and discontinuous coverage, particularly in rural areas."¹² Moreover, with more granular service areas, the problem of frequency coordination at the border of adjacent service areas will be severely magnified.

10. Border areas, between alternate service providers, can be classified as areas with greatly reduced spectral efficiency since part of the spectrum is unused in order not to create interference into neighbouring systems or suffer the effects of interference from neighbouring systems. To maximize spectral efficiency, the number of licenses around border areas should be minimized to the greatest extent possible. This implies that service areas should have the greatest amount of geographic area so that border areas constitute a small percentage of the total area.

11. Barrett Xplore goes one step further by recommending the creation of Tier 4 service areas where the rural service areas are unbundled from urban service areas (i.e. rural unbundling).¹³ Bell Mobility does not support this recommendation. Not only is a Tier 4 service area too small, but the creation of a new tier level will unnecessarily increase the complexity of the licensing process, as well as the costs to both the Department and Industry participants. Especially given that existing network infrastructure was developed, and implemented based on the existing tier service areas.

⁹ Rogers Communications Partnership, paragraph 33.

¹⁰ Rogers Communications Partnership, paragraph 33.

¹¹ Barrett Xplore, paragraph 47, Niagara Networks, paragraphs 4 and 5; and SSI Micro Ltd., paragraph 24.

¹² SaskTel, paragraph 7.

¹³ Barrett Xplore, paragraph 15.

3.0 PROMOTING COMPETITION

3.1 Spectrum Aggregation Limits and Spectrum Set-Asides

12. The Consultation requested comments regarding whether spectrum aggregation limits or spectrum set-asides would be most appropriate, as well as the use of other mechanisms in the 2500 MHz band, if the Department determines that there is a need for measures to promote competition. Bell Mobility remains strongly of the view that there is no need for measures such as spectrum set-asides, aggregation limits (or caps), or any other restrictions in order to promote competition in the Canadian wireless services market.

13. As noted in our initial comments, the Canadian wireless market has benefited from the relative freedom from regulation. Competition between wireless network providers has resulted in billions of dollars being invested in new technologies and services. This investment resulted in Canada being a world leader in the provision of wireless services. For example, 96% of Canadians now have access to HSPA+ networks that can offer mobile broadband speeds up to 21 Mbps; Canada's wireless service prices compare favourably to similar countries; and Canada has among the lowest wireless service revenues as a percentage of GDP. The combination of network quality and affordable prices has resulted in Canadians having among the highest average voice minutes per month.

14. Bell Mobility maintains its position that the adoption of market-based spectrum assignment processes, such as unrestrained spectrum auctions – that allow all potential bidders (New Entrants and Incumbents alike), the opportunity to bid – will determine those parties who value the spectrum most. Canada should continue to rely on real world investors and consumers, as opposed to bureaucratic judgment, for determining who values the spectrum the most and hence who will put the spectrum to its most efficient and best use. Bell Mobility submits that such an approach is clearly in the public interest.

15. As noted in our initial comments, there is a significant trade-off between increasing the number of competitors and achieving the scale necessary in order for network operators to operate in the most efficient manner. As the Phoenix Center Policy Paper argues, policy makers need to carefully consider the trade-off that arises "between dividing a fixed amount of spectrum into (a) many small pieces or (b) few big pieces,"¹⁴ and that this implies that "since

¹⁴ Phoenix Center Policy Paper, page 29.

advanced services, such as mobile broadband, demand that each firm possess large amounts of spectrum, the relevant tradeoff is potentially between many firms selling less advanced services versus few firms selling more advanced services."¹⁵

16. In order to understand the implications of this trade-off, it is important to determine whether there is insufficient competition and whether or not current network operators have the incentive to overbid in order to deter entry. As the Waverman-Dasgupta Report states, "the same factors that suggest that there is not insufficient competition in the market also suggest that the incentives for incumbent firms to overbid in order to deter entry are weak."¹⁶ Thus, where there is sufficient competition and weak incentives to deter entry, then policy makers should focus on enabling competition among firms selling more advanced services rather than trying to increase or maintain competition.

Sufficient Competition – Canada is a World Leader

17. Bell Mobility continues to be of the view that there is sufficient competition in the Canadian wireless services market and the incentives to overbid in order to deter entry are weak. As described in Bell Mobility's previous comments¹⁷, Canada is not falling behind. With respect to price, Canada compares favourably to similar countries. In terms of affordability (wireless service revenue as a percentage of GDP), and use (average voice minutes per month), Canada is in the top three in the G20. As the Waverman-Dasgupta Report observes, "the deployment of new HSPA+ networks, for instance, puts Canada well ahead of several European nations and the United States in the 'mobile broadband race'.¹⁸ They go on to conclude that "the high capital intensity of the Canadian wireless industry relative to its international peers also seems incompatible with a view of a passive oligopoly that is behind the international leading edge of mobile deployments,"¹⁹ and that "in fact, a sober analysis would suggest that Canada has come to be something of a leader in deployment of advanced data networks, something that it could not have claimed in 2004."²⁰

¹⁵ Ibid.

¹⁶ Waverman, L. and K. Dasgupta, *Time to Set Aside Caps that Don't Fit: The Limits of Spectrum Policy in Canada*, February 2011, paragraph 38.

¹⁷ Bell Mobility Inc., Comments to *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*, paragraphs 22 to 31 and Comments of Bell Mobility Inc. filed in Canada Gazette Notice No. SMSE-018-10, *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*, paragraphs 70 – 74.

¹⁸ Waverman-Dasgupta Report, paragraph 49.

¹⁹ Ibid.

²⁰ Ibid.

18. The idea of a passive oligopoly is not borne out by the quarterly results. Recent quarterly results indicate the competitiveness of the Canadian wireless market. For example, in the first quarter of 2011, Bell Mobility added 80,000 net post-paid subscribers, or 46% of the market. In the first quarter of 2007, Bell Mobility's share of new post-paid subscribers was just 6%. Likewise in the pre-paid market, Wind Mobile added 39,000 subscribers, which is more than Bell Mobility, Rogers and TELUS.²¹

19. The Department's objective must be an efficient and competitive wireless market, and not to artificially maintain a large number of new entrants, many of which have already expressly stated they intend to consolidate. Propping up new entrants, and continually providing them with new entrant concessions (particularly when the new entrants are large and well capitalized), will increase costs and reduce the overall efficiency of the market to the detriment of Canadians.

"Hoarding" or "Warehousing" Spectrum is Not a Concern

20. A number of parties agreed with Bell Mobility that there are aspects of 700 MHz and 2500 MHz spectrum that indicate that 2500 MHz spectrum is a very effective option in more densely populated areas.²² Thus, in terms of increasing capacity Bell Mobility notes that in markets with larger subscriber density (e.g. greater than 5 subscribers per square kilometre), 2500 MHz spectrum is more effective than 700 MHz.

21. If there is a joint 700 MHz and 2500 MHz auction, there will be a substantial amount of spectrum available for auction, ranging from 110 MHz up to 170 MHz in some areas.²³ With this much spectrum available, it makes it extremely costly for network operators to purchase spectrum and not put it to productive use. Furthermore, an additional benefit of having a joint auction with no spectrum set-asides or spectrum aggregation limits is that it allows the market to determine the appropriate substitutability between 700 MHz and 2500 MHz spectrum. This allows network operators the ability to bid on the two types of spectrum in different geographic

²¹ The Globe and Mail, "Wireless upstarts make inroads in pre-paid market." Available at: <http://www.theglobeandmail.com/globe-investor/wireless-upstarts-make-inroads-in-pre-paid-market/article2021896/>.

²² Barrett Xplore, paragraph 8; EastLink, paragraphs 4 and 5; Public Mobile Inc., page 4; Quebecor Media Inc., paragraph 40; and SaskTel, paragraphs ES1 and ES2.

²³ This consists of 50 MHz of usable FDD spectrum available for auction in the 700 MHz spectrum band and the 60 to 120 MHz of spectrum available for auction in the 2500 MHz spectrum band.

areas in order to obtain the appropriate mix of spectrum holdings given the business model that they are trying to implement.

22. Even with this much spectrum being auctioned, some parties continue to argue that spectrum allocation policies are required to promote competition, in order to ensure that existing network operators do not "overbid" (pay above the mere "use value" of the spectrum) in order to keep entrants out of the market.²⁴ However, as noted in our initial comments, the benefits of outbidding an entrant are dubious especially if outbidding results in a significant cost disadvantage relative to other wireless operators in the market. No one operator can afford to significantly increase its cost relative to the other operators in the market and still remain competitive. It is simply too costly to try and purchase enough spectrum in order to foreclose other bidders. Thus, a wireless operator will not want to spend hundreds of millions of dollars more than its rivals in order to acquire spectrum which it will not put to productive use.

23. Barrett Xplore indicates that they have "tried to negotiate with the incumbents for rural spectrum,"²⁵ and that they "have not been able to complete any transaction to date – even in areas where the incumbent has not deployed service to rural areas."²⁶ It is important to note that just because Barrett Xplore has been unable to enter an agreement for the use of spectrum, does not mean that the spectrum is being "hoarded" for anticompetitive reasons. There exist many reasons why one wireless provider may not sublicense spectrum to another, which is why the appropriate policy is not to mandate such transactions. To be clear, that does not mean that these transactions will never take place. In fact, while Bell Mobility has not entered into an agreement with Barrett Xplore, we have entered into agreements with Lynx Mobility and with Corridor Communications Inc.

24. Similarly, EastLink argues that "Inukshuk has built out its network only as far as necessary to ensure that it would not lose its 2500 MHz license."²⁷ This is simply not true. As noted by Rogers:

Inukshuk has invested several hundred million dollars in extending its fixed wireless network to 45 Canadian cities and over 300 rural communities. In addition, Inukshuk exceeded the implementation of spectrum usage condition of

²⁴ Public Mobile Inc., page 10; and Shaw Communications Inc., paragraph 46.

²⁵ Barrett Xplore, paragraph 5.

²⁶ Barrett Xplore, paragraph 5.

²⁷ EastLink, paragraph 13.

its MCS licenses, despite the substantial risk and ongoing uncertainty surrounding the final policy, technology and band plan.²⁸

25. Furthermore, as discussed in the Hazlett Report, an efficiency rationale for obtaining as much spectrum as possible is just as convincing an argument as the foreclosure argument. The Hazlett Report states that such claims of anticompetitive warehousing of spectrum "overlook a far more salient fact: large networks make very productive use of bandwidth precisely because of the complementarity of the new [spectrum] with those they already hold."²⁹ In fact, the report concludes that while efficiency arguments are at least as compelling theoretically as arguments that spectrum is being acquired for output restriction, the evidence clearly reveals a set of facts that support the efficiency arguments. The largest bandwidth holdings are those that serve the most customers and build the largest, most expensive network infrastructure.

26. The Hazlett Report also points out that network operators that have "holding inventories" of spectrum is fully consistent with efficient spectrum use. It allows network operators to implement capital investments on infrastructure more efficiently and effectively because it can provide the time necessary to implement the optimal least cost solution.³⁰

27. As discussed in our initial comments, it is important to note that there have been numerous occasions, including several outside of Industry Canada's licensing processes, to purchase mobile spectrum in Canada. More specifically, over the past five years, there have been ample opportunities to purchase BRS spectrum. For example, potential bidders had over a year to determine whether they would enter the court-appointed bidding process for Look Communications' spectrum and broadcast licenses in 2009. Likewise, others could have made offers for Craig Wireless Systems Ltd. in 2010. However, it was Bell Mobility's and Rogers' willingness to take a risk, along with the Department's foresight to enable BRS spectrum for mobile use that will enable the use of BRS spectrum for advanced wireless services. It should not be up to the Department to punish Bell Mobility and Rogers simply because others did not determine that it was worthwhile to purchase BRS spectrum when they had the opportunity.

28. The key point is that wireless providers have had repeated opportunity and the financial ability to enter the wireless market in the past. Bell Mobility does not believe, therefore, that it is appropriate for the Department to intervene in the market on these companies' behalf at the

²⁸ Rogers Communications Group, paragraph 16.

²⁹ Hazlett Report, page 5.

³⁰ Hazlett Report, pages 7 and 8.

expense of such companies as Bell Mobility, who incurred the risk and entered the wireless business in the early days and sustained years of losses.

29. Public Mobile argues that "Incumbents should not be permitted to bid on 2500 MHz spectrum in the auction process as they do not have any need for additional spectrum."³¹ Bell Mobility, like other national wireless carriers, requires additional spectrum. Over time, Bell Mobility has taken the appropriate risks in order to ensure that it has the spectrum required in order to provide leading edge services. Given the national focus of our network deployment and the extensive use of leading edge smartphones by our several million customers, Bell Mobility is quickly using up its available spectrum. Furthermore, existing BRS licensees require access to additional spectrum. Existing BRS spectrum licensees will have different spectrum holdings depending on the geographic area of the license, and thus, it is critical that these licensees have the opportunity to bid for 2500 MHz spectrum throughout the country.

30. Similarly, TELUS argues that "Incumbent fixed service license holders should not be permitted to bid to reacquire clawed back spectrum because to do so would fundamentally render the 2006 policy decision and 2011 band plan decision meaningless."³² However, neither the 2006 policy nor the 2011 band plan indicate that incumbent fixed service providers should not be permitted to bid. The 2006 policy simply states that "the added regulatory flexibility to permit the mobile service, together with the greater spectrum efficiencies associated with mobile technologies and the increased value associated with mobile spectrum, constitute a significant material change,"³³ and that "the implementation of the mobile service justifies a re-assessment of the licensing requirements including the amount of spectrum retained by incumbent licensees."³⁴ There is simply no logical connection between the 2006 policy decision, and TELUS' statement that allowing Incumbent fixed service license holders to bid on clawed back spectrum would render that decision meaningless.

31. With respect to spectrum aggregation limits, it is important to recall that the Department, subsequent to a thorough public consultation, rescinded the mobile spectrum cap policy, in *Gazette Notice No. DGTP-010-04 Decision to Rescind the Mobile Spectrum Cap Policy*, August 2004. Bell Mobility submits that the Department got it right in that decision when it stated that:

³¹ Public Mobile Inc., page 9.

³² TELUS Communications Company, paragraph 15.

³³ Notice No. DGTP-002-06 *Policy Provisions for the Band 2500-2690 MHz to Facilitate Future Mobile Service*.

³⁴ *Ibid.*

The wireless industry has matured and experienced tremendous growth in subscribers, and consumers are being provided with a range of voice and data services. After nine years, the Canadian wireless industry is well established.³⁵

32. As noted in the Waverman-Dasgupta Report, 2004 was also the year that Rogers purchased Microcell, yet there is no evidence to suggest that the removal of the spectrum cap hurt the performance of the Canadian wireless market:

Note that 2004 was the year in which Rogers purchased Microcell, which had emerged from bankruptcy proceedings. There is no evidence to suggest that since the cap was rescinded that the Canadian wireless industry has ceased to perform well. As mentioned previously, the wireless arms of the three major firms have invested a cumulative sum of over \$10 billion in their wireless networks between 2004 and 2009, and there are approaching 6 million broadband wireless subscriptions in Canada.³⁶

33. Bell Mobility continues to be of the view that given: (i) the industry has matured; (ii) the industry is not "hoarding" or "warehousing" spectrum; (iii) additional spectrum continues to be auctioned by Industry Canada; and together with (iv) the use of market-based spectrum auctions to assign the spectrum to the most efficient user, the issue of spectrum concentration, as the Department noted in its 2004 Notice rescinding the mobile spectrum cap, is no longer relevant.

34. Bell Mobility maintains the view that there is no factual basis for intervention in the wireless sector. There is neither insufficient competition nor an incentive to deter entry. As a result, market forces will ensure that those willing and able to put the spectrum to its best use will bid for and acquire spectrum. Applying spectrum set-asides or spectrum caps varies from the market-based approach inherent in spectrum auctions and begins to reinsert bureaucratic judgment into the equation. Based on the above comments and views, Bell Mobility strongly believes that it would not be in the public interest to set-aside any spectrum in the 2500 MHz spectrum auction. Moreover, Bell Mobility does not believe, given the current evolution and competitiveness of the Canadian wireless market, that an auction spectrum aggregation limit (spectrum cap) should be placed on the amount of spectrum that can be acquired by any single wireless service provider including its affiliates.

³⁵ Industry Canada, Gazette Notice No. DGTP-010-04 *Decision to Rescind the Mobile Spectrum Cap Policy*, August 2004, paragraph 9.

³⁶ Waverman-Dasgupta Report, paragraph 112.

35. Bell Mobility submits that the appropriate policy is for the Department to focus on enabling competition over more advanced services, and that spectrum auctions should not be used as a tool in order to make artificial adjustments to the level of competition in the market.

Roaming and Tower Sharing Rules

36. On the issue of other measures, some have argued that mandated roaming and tower sharing rules need to be altered.³⁷ Bell Mobility notes that these issues are currently being addressed by the Department. Moreover, consistent with Industry Canada's *Framework for Spectrum Auctions in Canada* Bell Mobility strongly believes that potential bidders must know precisely what they are bidding for prior to deciding whether or not to participate in the auction. In this regard we are referring to bidder eligibility, conditions of licence (such as licence term, etc.) and the imposition of any regulatory mandates on the spectrum at auction (e.g. mandated site sharing and/or roaming requirements, open access requirements, etc.). Bell Mobility believes, consistent with the principles laid out in the Framework that any and all such requirements must be identified prior to the auction and should not be subject to change, in any manner, over the term of the licence.

37. With respect to tower and site sharing, Bell Mobility continues to meet its obligations relative to tower and site sharing. We are aware of no complaints against us from any requesting operator seeking co-location licenses from Bell Mobility in terms of our handling of tower and site sharing requests. By far the most compelling evidence that Bell Mobility is meeting its obligations under the Conditions of Licenses is the fact that there have been no arbitrations commenced against us relative to our Master Tower Sharing Licenses or any tower-specific co-location approvals.

38. This does not mean, however, that the current tower and site sharing system is without flaws. By far the most significant flaw in the initial process was the apparent lack of discipline and focus it engendered by requestors, resulting in new entrants applying a "shotgun" approach to tower requests. The result: at the end of 2010, more than 60% of the total sharing requests received by Bell Mobility had been cancelled by requesting operators. Of equal concern, of the total number of conditional approvals to share space on our towers granted by Bell Mobility a further 60% of these had either been cancelled or the conditional approval was left to expire without the new entrant taking any action. This had serious negative consequences for all

³⁷ EastLink, paragraph 30; Shaw Communications Inc., paragraph 61 and 66.

carriers and for the tower sharing objectives as a whole. It saddled Bell Mobility with wasteful and unnecessary added costs. It also caused unnecessary delays with no cost ramifications to the requesting operator for their lack of focus or commitment in following through on a co-location request. It also had the effect of temporarily taking significant numbers of available Bell Mobility tower space out of circulation and creating backlogs for all other requestors until Bell Mobility receives actual notice that the requestor has abandoned the co-location request and the Company amends and updates its database to reflect this and shows the space is once again available for co-location.

39. It should also be noted that some new tower site and sharing delays can also be attributed to Industry Canada's mandatory process for installing or modifying an antenna system. This process requires consultation with Municipalities and or Land Use Authorities as well as requiring public notification regarding relevant concerns. However, the process now appears to be working as there are sharing agreements in place between various carriers.

40. With respect to roaming, the reality is that none of the domestic or U.S. roaming agreements to which Bell Mobility is a party provide for seamless handoff. To the contrary, all of our roaming agreements provide for hard handoff, meaning the call is dropped when the roamer transitions from their home network onto the roaming partner's network and the call must be re-initiated. Hard handoff is the North American industry standard.

41. Changes in the Conditions of Licenses at this time would be harmful given the significant added roaming costs and network configuration required in order to impose a regulated soft handoff standard. This would be a significant unexpected change since Industry Canada clearly stated in the *Conditions of License for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements* that "roaming does not require communications hand-off between home and host network such that there is no interruption of communications in progress."³⁸ To implement such a change part way through the license term would damage Bell Mobility, as Industry Canada would be significantly altering the facts that lead Bell Mobility to bid \$740.9 million in the AWS auction. Moreover, doing so would be fundamentally out of step with the Department's foundational policy of promoting facilities-based competition and relying upon market forces.

³⁸ Industry Canada, CPC-2-0-17 *Conditions of License for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements*, roaming conditions of license 9(2) bullet number 5.

42. An additional concern of Bell Mobility is in regards to the Department's failure to clearly and uniformly apply the Conditions of Licenses stating that roaming does not include resale. As a result, the Department has effectively granted new entrants resale rights by allowing their subscribers to qualify for roaming services, even those new entrant subscribers located in areas where the entrant has yet to construct and operationalize its network facilities.

43. Bell Mobility is fully meeting its obligations under its Conditions of Licenses and submits that there is no justifiable reason to alter the existing Conditions of Licenses with respect to tower and site sharing, and roaming. It is important to note that any changes to the Conditions of License during the term of the license can have a serious and material effect on the value of that license. Bell Mobility believes, consistent with the principles laid out in the Framework that any and all such requirements must be identified prior to the auction and should not be subject to change, in any manner, over the term of the licence.

Infrastructure Sharing

44. Some parties indicated that restrictions should be placed on bidders that have entered into infrastructure sharing agreements.³⁹ As Bell Mobility noted in our reply comments to the 700 MHz Consultation,⁴⁰ the Bell Mobility and TELUS infrastructure sharing arrangement was the catalyst behind significantly increased competition in the Canadian wireless industry. Therefore, putting restrictions on the ability to bid for bidders that have entered into infrastructure sharing agreements would be highly inappropriate and damaging to the development of the Canadian wireless industry.

45. Bell Mobility strongly considers that such a proposal, considering the benefits to Canadians resulting from this innovative infrastructure approach, is not warranted and would be inappropriate. The Bell Mobility and TELUS infrastructure sharing arrangement of 2008, enabled the most significant competitive event in the Canadian wireless industry, i.e. the launch of competing HSPA+ networks, exceeding any competitive impact resulting from Industry Canada's AWS auction framework. The launch provided millions of Canadians with viable competitive choices while using the latest wireless devices. It also captured network efficiencies which enabled the expansion virtually overnight of HSPA + wireless broadband technology

³⁹ EastLink, paragraph 15, and Roger Communications Partnership, paragraph 59.

⁴⁰ Bell Mobility Inc., Reply Comments to *Consultation on a Policy and Technical Framework for the 700 MHz Band and Aspects Related to Commercial Mobile Spectrum*, paragraphs 79 – 84.

throughout Canada, including to rural and remote areas that otherwise would have been left out of the wireless broadband revolution. Surely, it should not be the intent of Government policy to discourage such innovative arrangements that have brought increased competition to Canadians and increased efficiencies to the wireless market.

46. It is important to note that Bell Mobility and TELUS do not jointly own the HSPA+ network. Rather, Bell Mobility and TELUS each own the infrastructure that they have built and are permitted to build additional infrastructure anywhere in Canada. Moreover, Bell Mobility owns the spectrum used to provide services to our 7.2 million subscribers and has no agreement with TELUS with respect to the acquisition of either 700 MHz or 2500 MHz spectrum.

47. These types of innovative network coverage arrangements are occurring throughout the industry, e.g. the Rogers – MTS Allstream arrangement, the Rogers – T-bay-Tel arrangement and the 2001 Bell Mobility – TELUS CDMA arrangement. These arrangements provide benefits to Canadians and, through the strategic extension of advanced networks into rural and remote areas, to Canada overall. Industry Canada, in recognition of the benefits of such joint network builds has endorsed such arrangements and has not found, in previous auctions, that they attract associated entity status. To be clear, however, even with a joint build arrangement each party still requires its own spectrum to serve its many millions of wireless subscribers. Bell Mobility, for example, continues to require its own additional spectrum to build out its national networks as it aggressively competes with TELUS, Rogers, new entrants and regional licensees for new wireless subscribers. To its credit, Industry Canada has not blocked or interfered with such innovative commercial arrangements.

48. In addition, as indicated above, not only do Bell Mobility and TELUS respectively compete with others for customers' wireless business, we compete with each other in the market place. The nature of the infrastructure sharing is such that it is totally transparent to a customer whose air interface is being used to provide them with service. For example, even though served from a Bell Mobility air interface, if a customer has chosen TELUS as their supplier of choice, then as far as that customer is concerned TELUS is their supplier. Again, the end result is providing customers with competitive choices and in many cases in areas where, absent the infrastructure sharing, there would have been less or even no choice at all.

49. It should also be noted that there is nothing prohibiting or preventing other wireless carriers, i.e. national providers, new entrants or regional incumbents, from participating in such commercial arrangements. Indeed, even the Department's November 2007 *Policy Framework for the Auction for Spectrum Licences for Advanced Wireless Services and other Spectrum in the 2 GHz Range*, recognized similar arrangements, in addressing who qualifies for mandated national roaming, when it stated that:

A national new entrant is defined as a new entrant that has acquired licences for all Tier 2 or Tier 3 service areas, or a combination of Tier 2 and Tier 3 service areas, covering all of Canada in the AWS or PCS bands. This definition includes a group of new entrants collectively holding all Tier 2 or Tier 3 service areas, or a combination of Tier 2 and Tier 3 service areas, covering all of Canada in the AWS or PCS bands and cooperating to provide a national service.⁴¹ (Emphasis added)

50. Finally, Bell Mobility and TELUS both require additional spectrum in order to meet the projected demand for mobile data from their respective customer bases. Clearly, to treat Bell Mobility and TELUS as associated entities would not only serve to handicap two of Canada's national providers but would also handicap the millions of customers served by these two competitors. Bell Mobility and TELUS each have approximately seven million customers. Each therefore requires sufficient spectrum capacity to serve a combined total of approximately fourteen million customers. To suggest that Bell Mobility and TELUS serve their fourteen million customers with spectrum capacity only sufficient for half that number would have dramatic negative implications regarding future network performance and competitiveness, for both carriers and their customers.

3.2 Promoting Service Deployment in Rural Areas

51. The Consultation requested comments regarding specific measures that could be adopted within the 2500 MHz auction process to ensure further deployment of BRS in rural and remote areas. Some parties recommend the adoption of conditions similar to those used by the Department for PCS and AWS spectrum,⁴² with one indicating that RP-019 should be expanded.⁴³ However, as indicated above, the propagation characteristics of 2500 MHz

⁴¹ Industry Canada, *Policy Framework for the Auction for Spectrum Licenses for Advanced Wireless Services and other Spectrum in the 2 GHz Range*, November 2007, page 8.

⁴² Quebecor Media Inc., paragraph 49; Rogers Communications Partnership, paragraph 81; SaskTel, paragraph 22; and TELUS Communications Company, paragraph 94.

⁴³ Barrett Xplore, paragraph 97.

spectrum indicate that it is not conducive for the deployment of mobile wireless services in rural areas, but can be effective for increasing capacity in more localized ones.

52. As a result, Bell Mobility agrees with MTS Allstream which states that "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."⁴⁴ This view is also supported by Shaw, which argues "given that 2500 MHz spectrum does not lend itself to cost-effective deployments in rural areas and that the underlying technological ecosystem is still evolving, it would not be appropriate to impose roll-out obligations for this spectrum."⁴⁵

53. Bell Mobility continues to be of the view that market forces should determine the implementation of 2500 MHz spectrum in rural areas. It is inappropriate for the Department to mandate the broad deployment of 2500 MHz spectrum in rural areas since it will lead to an inefficient build out of network assets. Therefore, Bell Mobility submits that there should be no requirement for specific measures within the 2500 MHz spectrum auction process in order to ensure further deployment of BRS spectrum in rural and remote areas.

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⁴⁴ MTS Allstream, paragraph ES12.

⁴⁵ Shaw Communications Inc., paragraph 75.